

AH[owe, C.D.]

1925

Fifty common birds of Vermont.

Howe, C.D.

(1905).

HARVARD UNIVERSITY.



LIBRARY

OF THE

MUSEUM OF COMPARATIVE ZOOLOGY

54.883

BEQUEST OF

WILLIAM BREWSTER

July 9, 1920.

JUL 9 1920

Hume

Q-4.

Mr. William Brewster

54, 883

CIRCULARS OF EDUCATIONAL INFORMATION, No. XVIII.

FIFTY COMMON BIRDS
OF VERMONT,
BY CARLTON D. HOWE.

PREPARED FOR TEACHERS AND SCHOOL OFFICERS.

Issued by

THE DEPARTMENT OF EDUCATION,

STATE OF VERMONT,

MONTPELIER.

Authorized by Act No. 18,
of General Assembly, 1902.

WALTER E. RANGER,

Superintendent of Education.

PREFATORY NOTE.

As previously announced, the design of this series of educational publications is to acquaint teachers and school officers with important educational movements, to explain school law and practice and to treat important phases of school methodology and administration. While eighteen numbers, making nearly six hundred pages, have been issued, but little more than a beginning has been made in this field of opportunity to meet school needs more or less urgent. Only the limitations of time, labor and means have prevented the publication of many other circulars in preparation or under consideration. Thus far these circulars have been prepared and issued chiefly in response to recognized needs and demands. The welcome they have received and the appreciation of their service are most gratifying, but are chiefly significant in revealing the opportunities of their greater service in the future. Among other aims, it is hoped to issue in the future circulars treating of all the fundamental subjects and arts taught in common schools.

The *Study of Birds*, as its name implies, issued in 1902, was to promote more general study of birds in school, stimulate an interest in such work and to give helpful hints on methods and practice. At the time of its issue the need of a work of information was fully realized and it was then proposed to issue a pamphlet as an aid to teachers and pupils in the identification of birds and a study of their habits and life. The issue of that purpose is this circular, "Fifty Common Birds of Vermont."

Principal Carlton D. Howe willingly and generously responded to the invitation to undertake the work as designed, upon which he has been engaged for more than two years. In his hands its scope has been enlarged, and much valuable material has been added in lists of migratory and local birds, directions of sources to help and in other information. The work itself evidences the painstaking care and successful efforts of the author to render high service to the teachers and pupils of our public schools. It is the fruition not only of his recent investigations but also of his personal observation and study extending from early boyhood. Just and grateful acknowledgment is gladly rendered to Mr. Howe for his valuable and generous work, unrequited only by the satisfaction of study and the consciousness of service. In acknowledging his indebtedness to others he thereby expresses the grateful appreciation of this office.

April, 1905.

W. E. R.

ACKNOWLEDGMENTS.

The thanks of the author are due to Mrs. Elizabeth B. Davenport and to my brother, Clifton D. Howe, who read portions of the manuscript and offered valuable suggestions; to Frank M. Chapman, author, and to D. Appleton & Co., publishers, for permission to use descriptions of birds contained in Handbook of Birds of Eastern North America; to Mr. Chapman also for permission to photograph mounted specimens of birds in the American Museum of Natural History, New York City; to Prof. G. H. Perkins for allowing the use of the mounted birds in the Museum of the University of Vermont; to Dr. H. F. Perkins for photographing the birds both in Burlington and in New York; to those persons who have furnished the author with lists of birds, and migration lists from different sections of the State, which have been of much value to him in determining the period of arrival from the South of the species described in this pamphlet; to those bird students who have kindly consented to answer the inquiries of teachers and school children in regard to birds. In preparing this bulletin the writer has referred freely to many bird books, scientific and popular, bird magazines, and the bulletins issued by the Biological Survey of the U. S. Department of Agriculture.

INTRODUCTION.

This bulletin has been written for the purpose of creating among the teachers and school children of our State a greater interest and a deeper love for Vermont birds.

The species described are representative birds of the State, birds which undoubtedly occur, with few exceptions, in the majority of the towns of Vermont at some period, long or short, during the year. The descriptions given do not go into scientific details, but are intended to be ample enough to serve for the ordinary purposes of identification. It is hoped that the illustration also will aid materially to this end. The *dates of arrival* from the South will give one an idea *when* to expect and look for each species. The *favorite haunts* tell *where* the bird may be found. The *field marks* explain *how* the bird may be identified at a glance. The description of the song or note is for the purpose of aiding in identification, especially when the bird cannot be seen. The biographies emphasize the usefulness or the economic value of birds, a subject about which altogether too little is known at the present time by people in general. When the value of birds is once realized and fully understood, it will necessarily lead to a greater effort for the protection of birds in Vermont.

THE ECONOMIC VALUE OF BIRDS.—Birds are of inestimable value to man. They live upon harmful insects, their eggs and larvae, the seed of noxious weeds, and small animals which injure the crops. It is estimated upon expert authority that insects cause the annual loss of over two hundred million dollars to the agricultural interests of the United States. As insects are enemies of vegetation, so are birds the enemies of insects. It is a well known fact that when birds decrease, insects increase. Since birds check the undue increase of insects, just imagine what would happen if all the birds of our land were destroyed. Birds destroy an enormous amount of weed-seeds, which if allowed to germinate would cause a heavy loss to the farmers. There are many birds which live almost entirely throughout the larger part of the year upon these seeds.

As a rule farmers consider all hawks and owls their enemies. Dr. Fisher, assistant ornithologist, U. S. Department of Agriculture, has made an exhaustive study of these two families of birds. From his re-

port we learn that all the owls resident in our state are beneficial, that is, they do more good than harm. Only two of the hawks commonly found here, Cooper's and the sharp-shinned, are positively harmful. These two species live chiefly upon poultry and song birds. The owls and the other species of hawks do the farmer a great service and therefore should be protected by him.

How to ATTRACT THE BIRDS.—Birds select their place of residence with reference to food, nesting privileges, and protection from enemies. By furnishing these three things, many different kinds of birds may be attracted about our houses, lawns, gardens and orchards. Bluebirds, wrens, tree swallows, purple martins, chickadees and crested flycatchers will nest in bird houses. Almost anything that is hollow and has a hole in it will do. Care should be taken, however, to make the house rain proof or provide for proper drainage. Birch bark, old shingles, a funnel, a hollow limb, a hole bored into a block of wood, tin cans, lard pails, stove pipes and coffee pots have been used with success.

For tree swallows and purple martins build houses of many compartments and place upon the top of a pole at least twenty-five feet from the ground. For the other birds mentioned place the houses not more than fifteen or twenty feet up. "While the exact size of bird-boxes is rather immaterial, the size of the entrance hole is most important. This should be just large enough to admit the desired tenant, and small enough to keep out all larger birds. A diameter one and seven-eights of an inch will do for wrens, one and one-fourth inches for chickadees, one and one-half inches for bluebirds and swallows, two and one-half inches for martins, and three and one half inches for flickers and screech owls."—*Forbush in Bird Lore*.

Narrow strips of boards nailed under the eaves will attract eave swallows, cleats nailed to the rafters, the barn swallows, and a shelf, the phoebe.

The absence of a perch at the entrance will, in some cases, keep the English sparrow from occupying the bird-box. The best way is to drive this nuisance from the premises. Beware of the cats. A wide piece of tin placed around the trunk of the tree or pole will prevent the cat from climbing to the bird house.

The birds that are with us through the long winter will appreciate gratefully our thoughtful care in providing them with food. Suet, bones, scraps of meat, attached to the branches of trees or the sides of the houses, will attract the chickadees, woodpeckers, nuthatches and blue-jays. Hemp seed, sunflower seed, fine cracked corn and grain placed in shallow boxes or scattered on the ground will draw the sparrows, juncos, goldfinches, siskins and others. The deep snow and severe cold of the recent winters, making it extremely difficult for the birds to obtain food, has caused the death of many birds. Thus, feeding the birds in winter is an act of mercy which will repay an hundred fold, to say nothing of the joy and pleasure derived therefrom. Trees, shrubs, clumps of bushes, tangles and briars should be allowed to remain in the vicinity of the houses and by the roadsides in which birds may find shelter and nesting places. Birds would not molest fruits or the products of gardens if they could obtain their natural food. For this purpose either plant, protect or save the following trees, shrubs and plants: Mulberry, buckthorn, elder, shadberry, dogwood, all kinds of cherry trees, bittersweet, viburnum, hackberry, bayberry and pokeberry.

INSTRUCTIONS TO TEACHERS.—Teachers in some of the ways mentioned above, should encourage their pupils in attracting birds to the school houses. This can be done in the villages as well as in the country. The rural schools especially have an excellent opportunity. When once a schoolboy gets thoroughly interested in the study of birds, there will be little danger of his stoning them to death or robbing their nests. Let the teacher take the pupils into the fields where all may learn from each other's experience. If only one bird is known, either by pupil or teacher, that is a sufficient foundation upon which to begin. Others will soon be recognized and identified, and in a little while a dozen, a score or fifty birds will be added to the list.

Let the pupil tell orally or in writing about the birds seen during the field excursions.

Pupils of the grammar and high schools could profitably keep records of the appearance of birds in the spring, beginning early in the season when the birds are few.

"There is a fascination about the study of birds quite overpowering. It fits so well with other things—with fishing, hunting, farming, walking, camping out—with all that takes one to the fields and woods. One may go blackberrying and make some rare discovery; or while driving his cow to pasture, hear some new song or make a new observation. Secrets lurk on all sides. There is news in every bush. What no man ever saw before may the next moment be revealed to you. What a new interest the woods have! How you long to explore every nook and corner of them!"—*John Burroughs.*

INDEX.

	Page
Acknowledgments	3
Audubon Society	89
Bird Publications	90
Descriptions of Birds.....	7-71
Blackbird, Red-winged.....	33
Bluebird	69
Bobolink	30
Bunting, Indigo	45
Catbird	61
Cedarbird	51
Chickadee	64
Cowbird	32
Crow, Am.....	29
Cuckoo, Black-billed	12
Flycatcher, Least	26
Goldfinch, Am.	35
Grosbeak, Rose-breasted	43
Grouse, Ruffed	8
Hawk, Red-tailed	9
Jay, Blue	28
Junco, Slate-colored	42
Kingbird.....	23
Nighthawk	19
Nuthatch, White-breasted.....	62
Oriole, Baltimore	34
Ovenbird	58
Owl, Great-horned	11
Pewee, Wood	25
Phoebe	24
Redstart	60
Robin	68
Sandpiper, Spotted	7
Sparrow, Chipping	38
Sparrow, English	71
Sparrow, Field	39
Sparrow, Song	41
Sparrow, Vesper	37
Swallow, Bank	50
Swallow, Barn	48
Swallow, Cliff	47
Swift, Chimney	20
Tanager, Scarlet	46
Thrush, Hermit	66
Thrush, Wilson's	65
Vireo, Red-eyed	52
Vireo, Warbling	53
Warbler, Black-throated Green	57
Warbler, Chestnut-sided.....	55
Warbler, Yellow	54
Whippoorwill	18
Woodpecker, Downy	15
Woodpecker, Golden-winged	16
Yellowthroat, Maryland	59
Economic Value of Birds.....	3
How to Attract Birds	4
Information Bureau	88
Instructions to Teachers	5
Introduction	3
List of Birds of Brattleboro and Vicinity	72
List of Birds About St. Johnsbury	75
List of Birds of Bennington and Vicinity	77
List of Birds of Rutland County	80
List of Birds of Bristol and Vicinity	83
List of Birds Found in Vermont	85

SPOTTED SANDPIPER—(*Actitis Macularia*.)

Upper parts brownish gray with a faint greenish lustre; the head and neck more or less streaked and the back barred or spotted with black; under parts white, everywhere spotted with black; tail regularly barred with black and white; bill and feet flesh colored.

Length about seven and one half inches.

Arrival. May 1 to 20.

Favorite Haunts. Beside rivers, lakes and ponds.

Field Marks. Long slender wings, barred outer tail feathers, spotted breast.

Note. "Peet-weet, peet-weet, peet-weet."



The spotted sandpipers may be recognized by their peculiar motions. They run rapidly along the beach, then pausing, bob, bow, and "teter" in a most energetic manner. The sandpiper builds her nest in soft soil, in tufts of grass and sometimes in the cornfield, laying generally four eggs, each one of which is almost half as large as the bird herself.

RUFFED GROUSE—(*Bonasa umbellus.*)

Prevailing color of the upper parts rufous, much variegated with black, buffy, gray, and whitish; sides of neck with large tufts of broad, glossy black feathers; tail varying from gray to rufous, irregularly barred and mottled with black, a broad black or brownish band near the end; tip of tail gray; throat and breast ochraceous-buff, a broken blackish line on the breast; rest of under parts white, tinged with buffy and barred blackish or dark grayish brown, the bars indistinct on the breast and belly, stronger on the sides.

Female, similar but with neck tufts very small.

Length about seventeen inches.

Resident.

Favorite Haunts. In the woods.

Field Marks. A large brownish bird nearly as large as a hen, which makes a loud whirring noise when flying.

Note. "Quit, quit, quit." many times repeated.



Photographed from life.

When walking in the woods we are startled by a loud noise of whirring of wings and a ruffed grouse flies rapidly away. Or, in the summer time, we come across the mother grouse with her brood of young. She will try to lead us away from them by pretending to be in-

jured. Uttering cries of distress, fluttering about as if with broken wing, she leads us a safe distance from her precious little ones, and then flies away rejoicing that her brood is out of danger. At the first alarm note from their mother, the young grouse will hide under the leaves, or flattening themselves to the ground, will remain perfectly motionless until all danger is passed. The young when first hatched are downy like chickens. At first the brood may number from eight to twelve. As the grouse has many enemies, probably a small portion of the original brood live to see the second spring.

I presume many of our farmer boys have tried the experiment of putting eggs of the grouse under a sitting hen. Undoubtedly all the experiments have resulted in the same way; that the little grouse, deserting its foster mother, ran away as soon as hatched, or died if kept in captivity. Therefore, you may be surprised to be told that the writer knows of one grouse which for some reason overcame her wild instincts and became quite tame. A farmer in Newfane noticed a grouse following him in the field. Many times after that the bird would come out of the woods and remain near the farmer while he worked. The grouse continued to grow tamer and, finally, after much coaxing, the bird allowed herself to be taken into the hands. The writer also has had the unusual experience of holding this live ruffed grouse.

RED-TAILED HAWK—(*Buteo borealis*.)

Upper parts dark grayish brown; under parts white streaked with brown; tail reddish brown with a narrow black band near its end and a white tip. Young is similar but tail is brown banded with black.

Length, male about twenty inches; female twenty-three inches.

Resident.

Favorite Haunts. In the deep woods and in the air.

Field Marks. A large hawk with a brick red tail, tipped with white.

Many people think that all hawks are evil, and, therefore, should be killed at the first opportunity. This idea is entirely wrong. Many hawks do more good than harm, and the red-tailed is one of them. The Department of Agriculture at Washington has made a careful investigation of the food habits of the hawks by examining the contents of the stomachs of hundreds of these birds. The evidence is that the red-tailed hawk,

marsh hawk, red shouldered hawk and sparrow hawk are beneficial, and that Cooper's hawk and the sharp-shinned hawk are the evil doers. The last two mentioned are the real culprits as they live chiefly on birds and chickens. All other hawks suffer for the sins of these two species. It is not meant by this that the beneficial species never kill birds or chickens.



After U. S. Biological Survey.

They do sometimes, but the great amount of good done in destroying animals injurious to the farmer far outweighs the taking of a few chickens. Mr. Chapman says the two injurious hawks as a rule do not scream or soar but lurk quietly in ambush. It is sometimes a difficult matter to distinguish between good and bad hawks. The only safe way to give justice to whom justice is due is to kill only the hawks we

actually see taking our chickens and not destroy indiscriminately every member of the hawk family.

The large hawk which you see making circles high in the air probably is the red-tailed. See if you can distinguish the color of the tail. If not, listen. If the bird gives a long drawn whistle sounding very much like a boy whistling through his teeth, loud and explosive at first and gradually growing fainter, you may be sure that it is the red-tailed hawk.

GREAT-HORNED OWL—(*Bubo virginianus*.)

Size large; ear tufts conspicuous, nearly two inches in length; upper parts mottled with yellowish brown and black; facial disk yellowish.



After U. S. Biological Survey.

brown; a patch under the throat, rest of under parts whitish barred with black; legs and feet feathered; eyes yellow.

Length about twenty-two inches.

Resident.

Favorite Haunts. In the deep woods.

Field Marks. A large owl with long ear tufts or "horns."

Note. "Whōō, whōō, whoo, whoo, whōō, whōō, whoo, whōō," the short notes given with more energy than the longer ones, the last note of all generally being prolonged with an accent.

The great-horned owl was once much more common in Vermont than at present, but is still sparingly common. This owl is probably the earliest of our birds to nest. I once found a nest when the snow was three feet deep in the woods and I travelled on the crust. This species sometimes gives forth a loud, piercing scream which makes one shudder, and which is often mistaken for some wild animal, a panther or lynx. This large bird of prey lives chiefly upon skunks, rabbits and mice. Investigations have proved they do more good than harm.

The barred owl which is somewhat smaller than the great horned, has no "horns"; its head is rounder and its eyes are black.

The screech owl, probably the commonest owl in the state, is a small edition of the great-horned owl. The plumage of this little owl varies from reddish brown to gray.

BLACK-BILLED CUCKOO—(*Coccyzus erythrophthalmus.*)

Upper parts grayish brown with a slight green gloss; wings and tail the same, but the tail narrowly tipped with white; under parts dull white; bill black.

Length nearly twelve inches.

Arrival. May 3 to 25.

Favorite Haunts. Orchards, shade trees, and woods.

Field Marks. A long, slender, graceful, brownish-olive bird with a black bill. Tail slightly tipped with white.

Note. "Kōw-kōw-kōw, kuk-kuk."

Two species of cuckoos are summer residents of Vermont, the black-billed and the yellow-billed, the former being the more common. As their name signifies, the birds may be distinguished by the color of their bills.

As the cuckoos are shy, they may not allow you to approach near enough to see their bills distinctly. In general the yellow-billed is lighter colored than his black-billed cousin. He has also conspicuous white spots, "thumb marks," on his tail, while the white spots on the tail of the black-billed are small.



The cuckoos are very beneficial, as in summer time their food consists largely of tent caterpillars, consuming more of these pests than any other of our birds. Nests of these pests may be seen punctured with holes made by the cuckoo's bill. Such an abundance of hairy caterpillars do the cuckoos consume that often the lining of their stomachs is found to be permeated with the hairs. Fortunate are the orchards and shade trees that are visited by the cuckoos.

BELTED KINGFISHER—(*Ceryle alcyon.*)

Male, upper parts bluish gray with many white bands and spots on the short square tail, and the long pointed wings; throat white, this color passing on to the sides of the neck and nearly meeting on the back of the neck; under parts white with a blue belt around the breast; a long bristling crest; bill longer than the head, stout, straight and sharp.

Female, similar to the male but the sides, and the band on the belly rufous.

Length about thirteen inches.

Arrival. April 15 to 25.

Favorite Haunts. In the vicinity of streams, rivers, ponds and lakes.

Field Marks. General color of blue and white; a large crested head and a short tail.

Note. A harsh, croaking rattle, hard to describe but when once heard always recognized.



The kingfisher as the name implies lives chiefly upon fish. Sitting upon a perch on the bank, he suddenly darts out over the water, hovering a moment he plunges in and returns from the water with a fish in his bill. The kingfisher goes about with a preoccupied air, seldom seeming to notice what is going on about him. He minds his own business and

seems to expect other birds, and people, as well, to do the same. This species bores a hole into a bank, at the end of which are placed the pure white eggs. I can testify from personal experience that the mother kingfisher bravely defends her home. At one time when examining the nest, the bird used her bill as a weapon of defense, inflicting wounds on my hand that caused blood to flow.

DOWNTY WOODPECKER.—(*Dryobates pubescens.*)

Male, upper parts black, spotted and striped with white; a scarlet band on the back of the neck; under parts white.



Female, similar but without the scarlet band.
Length about six and three-fourths inches.

Resident.

Favorite Haunts. On the trunks of trees.

Field Marks. The smallest of our woodpeckers. The downy and hairy woodpeckers resemble each other in markings, but the hairy is larger, being over two inches longer.

Note. "His song is a thin rattle; his call note a sharp, peek-peek."

In spite of what has been said to the contrary, the downy woodpecker is one of the most beneficial birds that a farmer can have about his orchards. The downy is not a "sapsucker." That name is rightly applied to another species, the yellow-bellied woodpecker. Although the downy bores holes into the bark of trees, he does not revisit them to suck the sap as does the yellow-bellied. The "sapsucker" may be distinguished from the downy and hairy by its *red colored throat*. In the yellow-bellied species there is red on *top of the head* while in the beneficial species the red is on the *back of the neck*.

In spring time, in common with other woodpeckers, the downy beats a rolling tattoo upon a resounding limb. This is his love song, or one of them at least. In the winter he prefers a permanent home, and the inside of a tree to the outside, occupying a cavity which he himself has made. The winter home, however, is deserted when spring comes and he selects a new one in which to raise his family.

This bird can be attracted about the farm buildings by hanging pieces of meat and suet in the trees. Experts at Washington have found that 75 per cent. of the downy's food is composed of insects. "The little bird destroys May beetles, plant lice and ants. A single wood borer will often kill an entire tree, and one-fifth of the downy's food consists of such borers."

GOLDEN-WINGED WOODPECKER—(*Colaptes auratus*.)

Top of head ashy gray, a bright scarlet band across the back of the neck; upper parts mixed black, white and dull yellowish; wings and tail black with much white on both; inner surface of wings and shafts yellow; under parts light yellow with black patch on the breast and black spots on the sides.

Female, similar but without the black streaks on the sides of the throat.

Length about twelve inches.

Arrival. April 12 to 25.

Favorite Haunts. In trees and on the ground.

Field Marks. A bird a little larger than the robin. In flight it shows a round white spot at the base of the tail. A conspicuous black spot on upper breast, black polka dots on lower breast and sides.

Note. "Wick-wick-wick-wick," repeated in quick succession. Also a few guttural notes. "A prolonged jovial laugh."—Audubon.

"Clape, clape, clape," "Pe-auk, pe-auk."



Although a woodpecker, the golden winged has laid aside many of the woodpecker habits. Instead of drilling holes in trees for a living, he gets most of his food from the ground. This species does the farmer a good turn by eating grasshoppers and ants, the latter comprising nearly half of his food. He is also fond of fruit, especially cherries. In two

hundred and thirty stomachs examined at Washington fifty-six per cent. was animal matter, thirty-nine per cent. vegetable, and five per cent. mineral. Two of them contained over three thousand ants each. Other insects were beetles, bugs, grasshoppers, crickets, caterpillars, May flies and white ants.

WHIPPOORWILL—(*Antrostomus vociferus.*)

Male, upper parts brown, streaked with black; head finely mottled with black and white; a narrow white band across the throat; outer tail feathers white; a large mouth fringed with bristles.

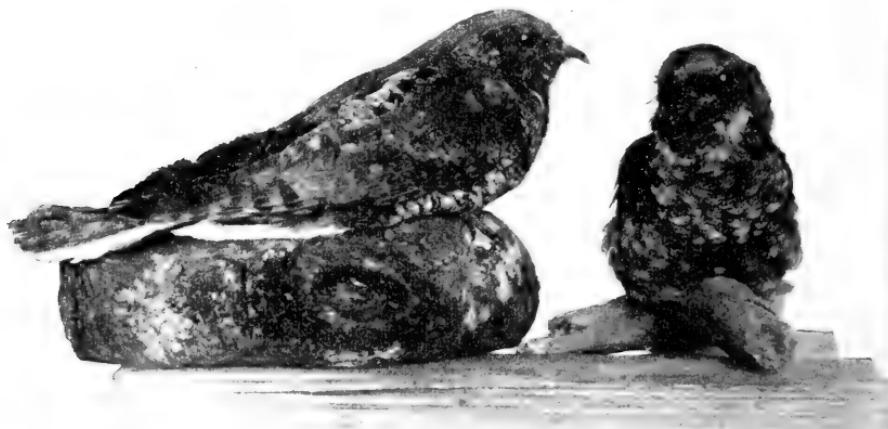
Female, similar but throat buffy instead of white; very little white on the tail.

Length about ten inches.

Arrival. May 7 to 20.

Favorite Haunts. In the woods; flying about at night.

Field Marks. General color a grayish brown, having a white band across the neck and white outer tail feathers.



Note. "Whip-poor-will" many times repeated.

The whippoorwill is more often heard than seen. The distribution of this species is irregular, being common in some localities and rarely, if ever, seen in others. In Newfane the bird is very common, while in an

adjoining town it is never seen or heard. At St. Johnsbury the whippoor-will is very rarely observed, while in the town of Barnet it is common. This species seems to prefer the lowlands, seldom being found in the more mountainous region.

The whippoorwill is one of my favorite birds. Being so plentiful about my boyhood home, this bird has greatly interested and delighted me. Many pleasant memories and associations hover around the personality of the whippoorwill. I have heard his song at every hour of the night, from early twilight until dawn. In some shady place in the woods, I have watched the bird during the day. Several times have I found the spot where lay her two beautiful eggs with no apology for a nest, simply a depression in the leaves, and once I was fortunate enough to see the cunning, downy young. The whippoorwill lives chiefly upon night-flying insects.

NIGHTHAWK—(*Chordeiles virginianus.*)

Upper parts blackish, marked with brown; under parts whitish, barred with black; throat white; wings and tail with conspicuous white bands.

Female has no white on the tail, throat buffy.

Length about ten inches.

Arrival. May 10 to 20.

Favorite Haunts. In the air, or resting on the limb of a tree.

Field Marks. Long pointed wings, showing a white patch; flight resembles that of a chimney swift.

Note. A nasal "peent."

The nighthawk is not a hawk at all, being closely related to the whippoorwill and the chimney swift. The name is undoubtedly derived from the bird's habit of flying through the air in the early evening in search of food. The nighthawk is quite common in some localities and sparingly common in others. During the day the bird rests sitting lengthwise of the branches of trees. From early twilight until dark, it is on the wing. When high in the air the nighthawk suddenly dives downward at breakneck speed, but abruptly changes its course with an upward shoot. Just at this time a loud noise is heard which is said to be caused by the rushing of air through the bird's wings. Some people

ignorantly believe that the nighthawk and whippoorwill are birds of the same species, one being the male, the other the female. Although both are nocturnal birds, their habits are different. The whippoorwill gets its food on or near the ground, never flying very high in the air. Nighthawks



are sometimes shot while flying in the air by thoughtless men and boys, wrongly calling such cruelty sport. The nighthawk is a very useful bird. It never touches grain or fruit, living on insects of the air, chiefly flying ants.

CHIMNEY SWIFT—(*Chaetura pelagica.*)

Body sooty brown; throat grayish white; sharply pointed tail feathers. Length about five and one-half inches.

Arrival. April 29 to May 10.

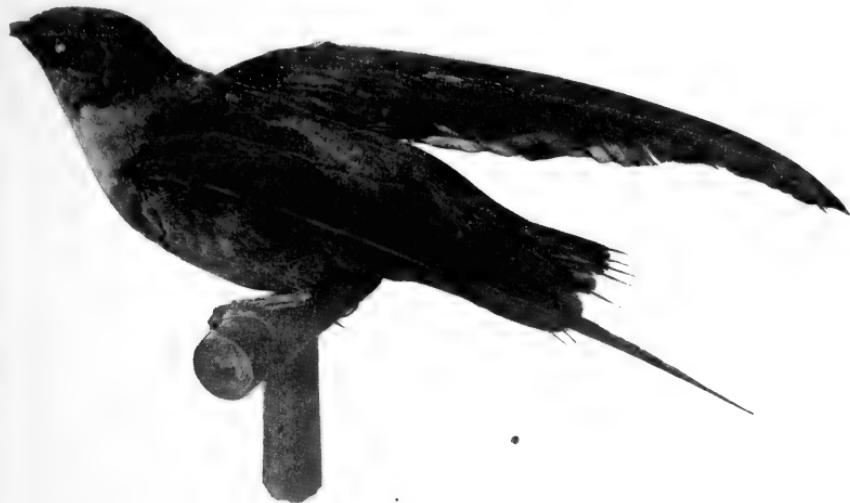
Favorite Haunts. In the air.

Field Marks. This bird may be distinguished from the swallows by its quick, strong, rapid flight.

Note. A prolonged chatter.

The chimney "swallow" as it is more commonly called is not a swallow but a swift belonging to a family by itself and being related to the

hummingbird. Although in form it resembles the true swallow, in bodily structure it is much different. When not clinging to the sides of a chimney, the swift lives entirely in the air. I believe there is no record of a chimney swift alighting on trees or other objects as do other birds. The swift is remarkable also in nest building. It collects the material while



in flight, breaking off the small dead twigs of trees. The nest is stuck to the chimney and the twigs to each other by a salivary, glue-like substance which the bird ejects from the mouth. The swifts are in the air from early dawn until late at night. As they obtain their food from the insects of the air, they are very beneficial birds.

RUBY-THROATED HUMMINGBIRD—(*Trochilus colubris.*)

Male, upper parts bright shining green; wings and tail dusky with purplish reflections; throat beautiful metallic ruby-red, bordered on the breast by whitish; rest of the under parts dusky, washed with greenish on the sides.

Female, similar but without the ruby-red on the throat.

Length about three and three-fourths inches.

Arrival. May 6 to 20.

Favorite Haunts. About the flower gardens, and orchards and often away from dwellings in the edges of woods.

Field Marks. The smallest of our birds.

Note. A mouse-like squeak, expressive of distrust or excitement.

This tiny bird may be seen hovering before the flowers. The sphinx or hummingbird moth is sometimes mistaken for the ruby-throat, but this moth generally visits flowers after the hummingbird has left them



for the night. The hummingbird is a brave, fearless little body, at times coming close to you in his search for food. He sometimes chases larger birds. The ruby-throated not only sucks nectar from the flowers, but eats the insects that he finds lodged therein. He is also very fond

of the sap of trees. He regularly visits trees perforated by the yellow-bellied sapsucker. The only nest of this bird that I have had the pleasure of seeing was placed on the horizontal branch of a maple tree. It is said that the male leaves the care of nest building and rearing the young entirely to the female.

KINGBIRD—(*Tyrannus tyrannus.*)

Upper parts grayish slate-color, darker on the head, wings and tail; head with a concealed orange-red crest; tail black, tipped with white; under parts white, washed with grayish on the breast.

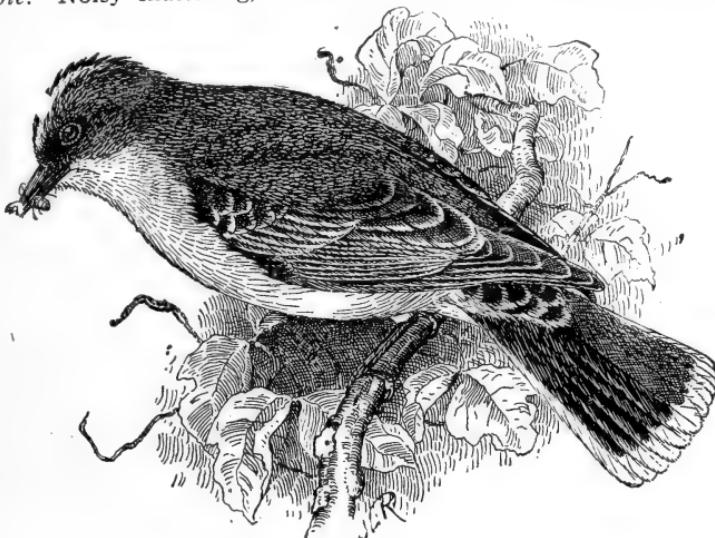
Length about eight and one-half inches.

Arrival. April 20 to May 15.

Favorite Haunts. The orchards, roadsides and fields.

Field Marks. Tail tipped with broad band of white, often spreads the tail when about to alight.

Note. Noisy chattering, and a note resembling "Kyrie-k-y-rie."



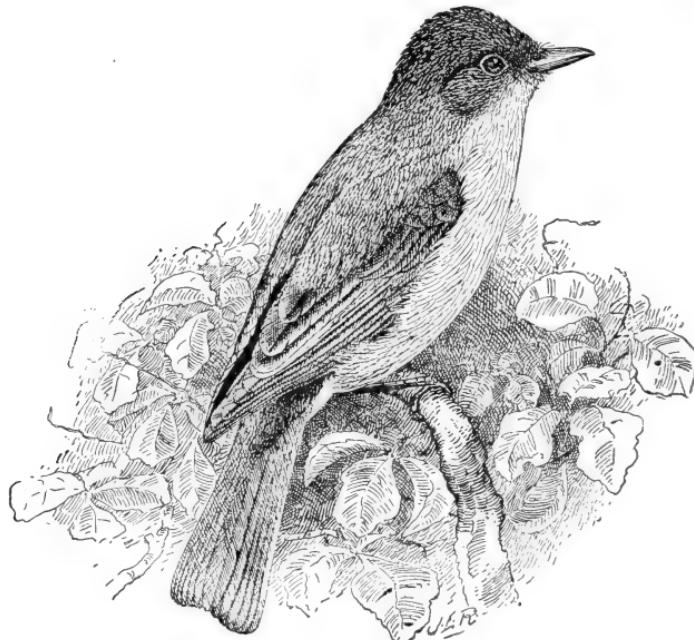
After U. S. Biological Survey.

The kingbird is the most noisy and pugnacious of our flycatchers. A crow or hawk which comes in this bird's vicinity must beware or he will lose some of his feathers. I have seen kingbirds alight on the backs of these large birds, giving them vigorous thrusts. Dr. Judd of the

Department of Agriculture at Washington, who examined the stomachs of many kingbirds says: "The kingbird is one of the most beneficial birds of the farm. It destroys rose beetles, flies injurious to cattle, and other insect pests not usually molested by birds; and while it also kills honey bees, it almost invariably selects worthless drones. This flycatcher protects grain, game and poultry by driving away the crow, the sharp-shinned hawk and Cooper's hawk, notorious marauders of the farm."

PHOEBE—(*Sayornis phoebe.*)

Upper parts grayish brown with an olive green cast; crown distinctly darker, dusky; wings and tail dusky; under parts white, more or less yellowish and tinged with yellowish gray on the breast and sides.



After U. S. Biological Survey.

Length about seven inches.

Arrival. March 20 to April 10.

Favorite Haunts. On the ridge-poles of barns, about bridges and the banks of streams.

Field Marks. Dusky brown crown cap; outer feather of the tail showing white. The phoebe's surroundings and note distinguish him from other birds.

Note. "Phoebe, phoebe."

The phoebe is a well-known bird. Almost every farm in the state is blessed with his presence. In early spring one of the notes of the chickadee is often mistaken for that of the phoebe. People have told me that they had heard the phoebe when I knew from the date that this bird could not be present. The chickadee's note which causes the confusion is a long drawn plaintive p-h-o-e-b-e whistle, while the phoebe's note in comparison is a short, energetic phoëbe.

The phoebe helps clear the air of flies, eats beetles, caterpillars and squash bugs. Ninety-three per cent. of his year's food consists of insects and spiders. Prof. Beal says there is hardly a more useful species about the farm, and he should receive every encouragement.

WOOD PEWEE—(*Contopus virens.*)

Upper parts blackish brown with an olive green shade; wings and tail dusky; white bars on the wings; under parts white, washed with an olive gray on sides of throat and breast.

Length about six and one-half inches.

Arrival. May 9 to 22.

Favorite Haunts. In the woods, sometimes in orchard and shade trees.

Field Marks. Smaller than the phoebe, larger than the least flycatcher; wings decidedly longer than tail; white bars on the wings.

Note. Long, Plaintive "pe-wee, peer, pe-wee peer, pe-wee peer, pe-wee."

"The wood pewee's pensive, gentle ways are voiced by his sad, sweet call. The notes are as musical and restful, as much a part of Nature's Hymn, as the soft humming of a brook. All day long the pewee sings; even when the heat of summer silences more vigorous birds, the clear



sympathetic notes of the retiring songster comes from the green canopy overhead, in perfect harmony with the peace and stillness of the hour."—Chapman.

LEAST FLYCATCHER—(*Empidonax minimus.*)

Upper parts between olive green and olive brown; wings and tail dusky; wing bars ashy white; under parts grayish white, darker on breast and sides.

Length about five and one-half inches.

Arrival. April 29 to May 10.

Favorite Haunts. In the orchards and shade trees.

Fields Marks.—The smallest of our flycatchers. No yellow on the under parts.

Note. "Che-béc! che-béc!" Sometimes, "chebéc, tooral-ooral, chebéc, tooral-ooral."

Mr. Chapman says: "We cannot confuse his voice with that of any other bird, and young ornithologists should give him a vote of thanks for his clear enunciation." The least flycatcher, and other members of the



flycatcher family also, has the habit of perching at some point of vantage, and then darting out into the air for every passing insect. They are friendly and sociable and bird lovers have induced them to build their pretty, compact nests in trees very near the house. It is a pleasure to note that these useful little birds are increasing in number throughout the state.

BLUE JAY—(*Cyanocitta cristata.*)

Head crested; upper parts grayish blue, marked with black and white; a black band passing across the neck back of the head, down the sides of the neck and across the breast; tail blue; all but the outer feathers barred with black and all but the middle pair broadly tipped with white.

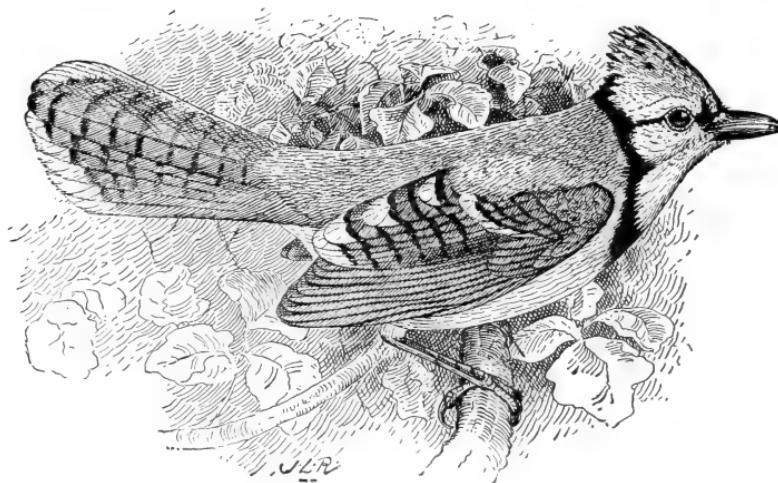
Length about eleven and three-fourths inches.

Resident.

Favorite Haunts. In the woods, often visiting orchards and shade trees.

Field Marks. A bird a little larger than the robin that is chiefly blue in color.

Note. A whistling bell-note, and a nasal scream, "Jay, jay, jay."



After U. S. Biological Survey.

The blue jay is more common in the state than he appears. Many faults are laid to the blue jay. Chief among these is that he eats the eggs and young of other birds, and the farmers' corn. Believing this many boys and men sometimes shoot this bird at sight. But investigation has proved that the blue jay seldom robs birds' nests, and eats the farmers' corn only when he cannot get readily other kinds of food. His food is

practically three-fourths vegetable and one-fourth animal. He prefers acorns, beechnuts, grasshoppers, caterpillars and beetles, the last three mentioned comprising one-fourth part of his diet.

CROW—(*Corvus americanus*.)

Entire plumage black with steel-blue or purplish reflections.
Length eighteen to twenty inches.



Resident.

Favorite Haunts. In woods, as a rule near habitation.

Field Marks. A large bird entirely black.

Note. "Caw, caw, caw."

When a boy is asked to name the birds he knows, very often the crow is the first one mentioned. The crow is certainly familiar to every Vermont boy and girl. What farmer's boy has not trapped and hunted him for pulling his father's corn. He has learned how cunning and wise the crow is. Perhaps he has kept a young crow about the farm house for a few weeks, realizing then to the sorrow of the whole family, how much noise a crow is capable of making. I know by experience that a young crow makes a splendid alarm clock, self winding and continually sounding—until food is stuffed down his throat. One of my neighbors once had a tame old crow that could speak a few words quite distinctly.

No one disputes the fact that the crow at certain times of the year does some injury to the farmers, but whether the injury exceeds the good that he does is a matter of doubt. The Department of Agriculture has investigated the food habits of the crow with this result: The adult American crow is vegetarian to the extent of two-thirds of his diet and half of his vegetable food consists of grain, principally corn. But the nestling crows consume large quantities of cutworms, grasshoppers, May beetles, both larvae and adult, thus rendering considerable more service to agriculture than the adult birds. In fact the quantity of insect pests they consume exceeds in volume more than two to one of the corn they take.

In the warmer portions of the state where the crow can obtain plenty of food, he remains throughout the winter.

BOBOLINK—(*Dolichonyx oryzivorus.*)

Male, top and sides of the head and under parts black; back of the neck with a large yellowish cream-buff patch; back largely grayish white; tail feathers with pointed tips.

Female, young, and adult male in the fall, upper parts brownish streaked with black; under parts buffy; "like a big sparrow."

Length about seven inches.

Arrival. May 7 to 20.

Favorite Haunts. In meadows and fields.

Field Marks. The bird, black beneath and mostly white on the back, which you see hovering over the meadows is a bobolink.

Song. A jolly, rollicking song, hard to express in words, but when once heard easily remembered. "Bobolink, bobolink, spink, spank, spink."

Those who are not acquainted with the bobolink's song have been deprived of an exquisite pleasure. How wonderfully, how beautifully, with what perfect abandonment of joy he sings. There is a little village in Caledonia county in the very front yards of which I once heard



After U. S. Biological Survey.

three bobolinks singing in chorus. How fortunate is that village! They delight us with their sweet songs for a short time only. They come to us about the middle of May. By the last of August or first of September they have reared their young, the male has changed his suit of black and white to the sparrow-like dress of the female and young and old have

started on their long journey to south America, their winter home. While in their summer home the food of the bobolinks consists almost entirely of insects, especially grasshoppers.

COWBIRD—(*Molothrus ater*.)

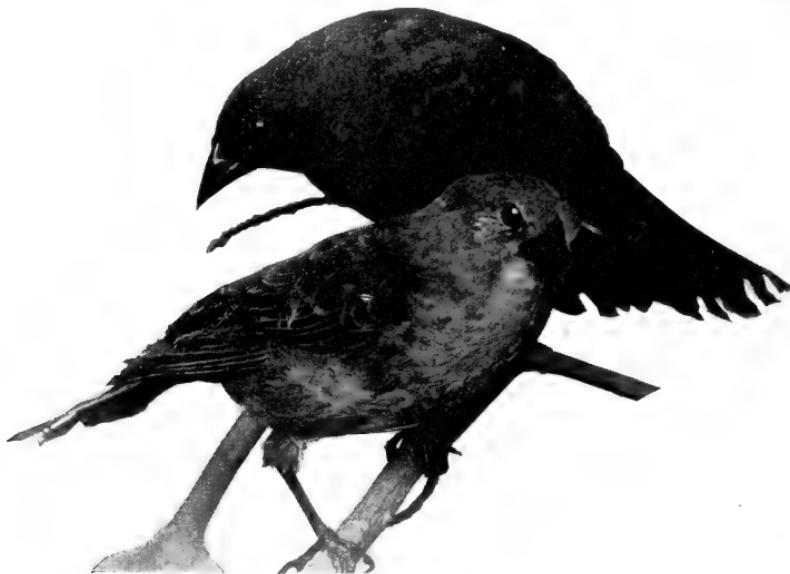
Head, neck and breast coffee brown; rest of plumage glossy black, with metallic bluish and greenish reflections.

Female, dark brownish gray, lighter below, especially on the throat. Length about seven and a half inches.

Arrival. March 18 to April 10.

Favorite Haunts. In the pastures around the cattle.

Field Marks. A black bird with head, neck and breast coffee brown.



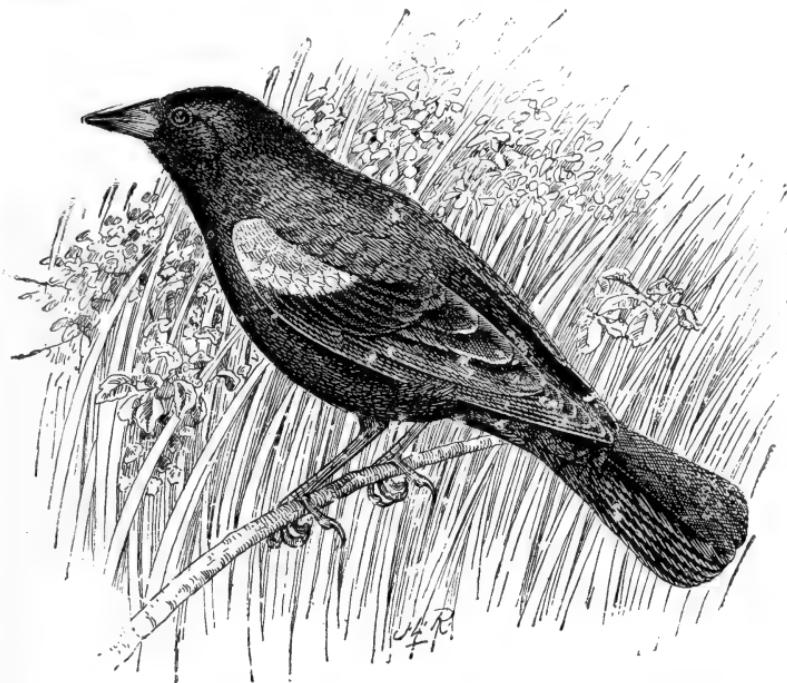
Note. A whistle, and a few short rasping notes. Call note, "cluck-see."

It has given me great pleasure to describe the habits of the different birds mentioned in this pamphlet. I have left the cowbird until the very last one because it is far from a pleasure to tell the truth about this bird. The cowbird does not build a home of its own. It lays its

eggs in the nests of other birds, generally imposing upon smaller birds as the sparrows, vireos and warblers. The cowbird's egg hatches first and the young intruder crowds out, or by his rapacious appetite starves the rightful occupants of the nest. Every full grown cowbird then may represent the destruction of a nestful of some beneficial birds and sweet songsters. Some one has described the cowbird as a bad neighbor, a worse parent, a homeless vagabond, and an outlaw in bird land.

RED-WINGED BLACKBIRD—(*Agelaeus phoeniceus.*)

Male, glossy black except the scarlet shoulders edged with buff.
Female, mixed rusty black and buff with dull reddish orange buff.
Length about nine and one-half inches.



After U. S. Biological Survey.

Arrival. March 25 to April 25.

Favorite Haunts. Along the marshy shores of rivers, lakes and ponds.

Field Marks. The red patches on the wings or shoulders distinguish this species from other blackbirds.

Song. A rich "Kong-quer-rēē" or "Oucher-la-rēē-é." Note, "Chut chuck" and "Chee-e-e-e-e."

During the breeding season the red-winged blackbird seldom goes far from home, but after the young are reared these birds collect in flocks and roam about in search of food.

The red-wings live chiefly upon injurious insects and seeds of weeds. The seeds of ragweed, barn yard grass, and smartweed amount to fifty-seven per cent. of their vegetable diet. Grasshoppers, weevils and beetles amount to nearly forty per cent. of their insect food. This species of blackbird is locally common throughout Vermont. These birds become attached to particular nesting sites, inhabiting the same ones for years.

BALTIMORE ORIOLE—(*Icterus galbula*.)

Male, head, neck, throat and upper back black; wings black, edged with white; tail black and orange about half and half; breast, under parts and lower back deep, rich, reddish orange.

Female, upper parts brownish or grayish orange, brighter on the rump; head and neck mottled with black; wings dusky, under parts dull orange.

Length about seven and one-half inches.

Arrival. April 25 to May 12.

Favorite Haunts. In the shade trees and orchards, along the highways, seldom far from habitation.

Field Marks. The oriole's dress of orange and black easily distinguishes him from other birds.

Song. "There is a bright, vivacious song, an equally hearty scold, a high shrill whistle and a richly modulated love song, one of the most exquisitely finished and tender of bird songs."—Florence Merriam.

With the exception of the scarlet tanager the golden robin is our most brilliantly colored bird. Aside from its brilliant colors the oriole is a favorite of bird lovers on account of the remarkable nest which it builds. Upon the drooping limbs of a tree, generally an elm or maple, is hung the pouch-shaped nest which is woven strongly and compactly

together by means of strips of bark, grasses, fibers, hair and string. It is said that the female does all the work of nest building while the male stays near by watching the process and encouraging her with his song.



After U. S. Biological Survey.

The Baltimore orioles feed largely upon tent caterpillars, which amount to 34 per cent. of their summer food. They sometimes eat a little fruit which they take in a way of variety from their usual diet of injurious insects. This, however, is only a small compensation for the great amount of good which the oriole does.

GOLDFINCH—(*Spinus tristis*.)

Male, bright yellow; cap, wings and tail black, the latter two marked with white.

Female, upper parts grayish brown, with an olive tinge; wings and tail as in the male, but more dusky and white markings less distinct; under parts whitish, washed with buffy brown and more or less tinged with yellow, especially on the throat.

Male in winter plumage similar to the female but with wings and tail black.

Resident.

Favorite Haunts. In summer, in orchards and shade trees; in fall and winter roaming about in flocks.

Field Marks. The goldfinch may be distinguished by its undulating flight and by its yellow body and black wings.

Song. A wild, sweet canary-like warble. Note, "Ker-chee-chee-chee, whew-é, whew-é."



After U. S. Biological Survey.

It may not be generally known that this brightly colored canary-like bird remains with us during the cold winter months, but such is a fact. After the young are reared the male changes his gay colored coat for the more somber colors of the female. In late fall and winter the old and young collect in flocks, living entirely upon seeds, chiefly those of noxious weeds. These flocks increase until midwinter when

several hundred may be seen together feeding upon weed seeds remaining above the snow.

For some reason the goldfinch does not begin housekeeping so early as most birds, seldom building before July or August. The nest is usually lined with thistle down, making a soft, fluffy and beautiful structure. Possibly the bird waits until the desired material may be obtained.

VESPER SPARROW—(*Pooecetes gramineus*.)

Upper parts brown streaked with dusky; reddish brown patch on the wings; tail dusky, outer feathers of the tail showing white in flight; under parts white; breast and sides streaked with brown.



Length about six inches.

Arrival. April 5 to 25.

Favorite Haunts. The roadsides, fields and pastures.

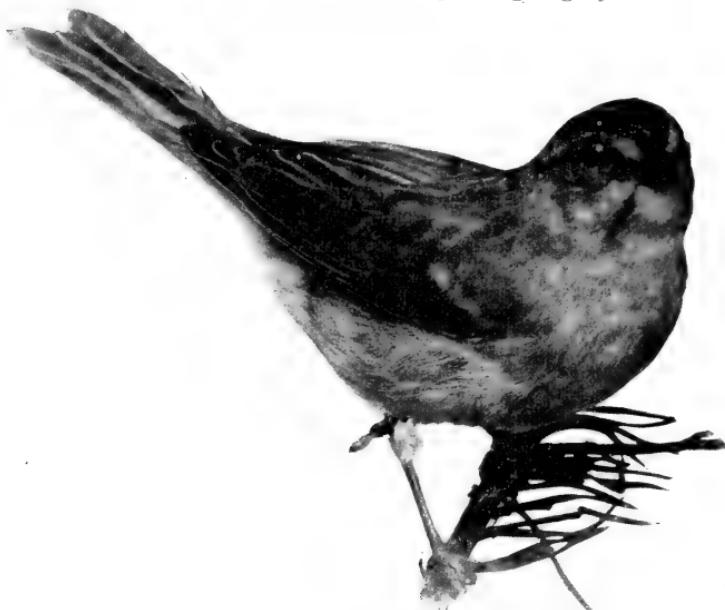
Field Marks. A brown bird showing white outer tail feathers in flight.

Song. "Chewee-chewee-chewee, tira-lira-lira-lee." Mr. Davie describes the song as a clear, sweet trill, finely modulated, or the song sparrow's song reversed.

Investigation of the food habits of the vesper sparrow by the United States Department of Agriculture shows that two-thirds of the food of the year is of vegetable matter, the rest being largely insects and spiders. In summer the birds eat chiefly insects, especially grasshoppers, beetles, cut worms and army worms. In July grasshoppers form nearly half of the sparrow's food. Thus we see the vesper sparrow aids the farmer in his fight against weeds and insect pests.

CHIPPING SPARROW—(*Spizella socialis.*)

Top of head reddish brown; a light stripe over the eye; a black line through and behind the eye; bill black; back streaked black, brown and buff; wings and tail dusky; under parts pale light gray.



Length about five inches.

Arrival. April 10 to 24.

Favorite Haunts. In hedges and trees near buildings.

Field Marks. The smallest sparrow nesting in our state. Top of head reddish brown.

Song. An insect like trill varying a little in tone from that of a locust, "Tr-r-r-r-r-r-r-r-r-r-r." A monotonous chippy-chippy-chippy-chippy-chippy, rather high and wiry.

Of trustful disposition the chipping sparrow is a familiar bird, coming close to the houses and often building his nest of hair within a few feet of the windows or doors. Bradford Torrey says this bird might well be called the "doorstep sparrow." His tameness gives us an excellent opportunity to study his habits. The school children can do so with profit and pleasure especially if chippy begins the acquaintance-ship by taking up his abode near the house.

Florence Merriam says as a seed eater he destroys the foxtail and crab grass that disfigures our lawns, and he helps, too, to free our premises of pigweed, chickweed, and knotweed; while as an insect eater he does us a good turn by eating cabbage worms and caterpillars.

FIELD SPARROW—(*Spizella pusilla.*)

Bill reddish brown or flesh colored; top of head reddish brown, a gray line over the eye; back reddish brown, finely streaked with black; under parts white or buffy, unspotted; whitish wing bars; tail longer than wings; very light colored feet.

Length about five and one-half inches.

Arrival. April 10 to 20.

Favorite Haunts. In dry pastures and on bushy hill-sides.

Field Marks. The field sparrow may be distinguished from the chippy sparrow which he much resembles by the reddish brown color and the reddish bill, the bill of the chippy being black. The tail is longer than the chippy's.

Song. "Cher-wēē, cher-wēē, cher, wēē, cher wēē, chēē-o, de-de-de-de-de," the last notes joined in a trill.—Chapman. "Fe-o, fe-o, fe-o, few, few, few, fee, fee, fee," uttered at first high and leisurely but running very rapidly at the close which is low and soft.—Burroughs. "Whee-whee-whee (whistles) iddle-idle-ee" (trills). "Its notes are sweet and

very clear like the tinkling of a bell. They open with a few exquisitely modulated whistles, each brighter and a very little louder than the preceding, and close with a sweet trill."



After U. S. Biological Survey.

The field sparrow is a sweet singer and many are the variations in its song. His food is approximately forty per cent. animal and sixty per cent. vegetable matter, the former consisting chiefly of injurious insects, and the latter chiefly of weed seeds.

SONG SPARROW—(*Melospiza fasciata*.)

Upper parts brown streaked with black; under parts white streaked with black; grayish line over the eyes; no white bars or yellow on the wings; tail rufous grayish brown; sides of throat with black or blackish streaks; breast with wedge shaped streaks of black which form a spot in the center of the breast.

Length about six inches.

Arrival. March 12 to April 10.

Favorite Haunts. In shrubbery, particularly along roadsides and streams.

Field Marks. The sparrow with a black spot on its breast.

Song. "Olit, olit, olit—chip, chip, che char—che-wis, wis, wis."

(Thoreau.)



After U. S. Biological Survey.

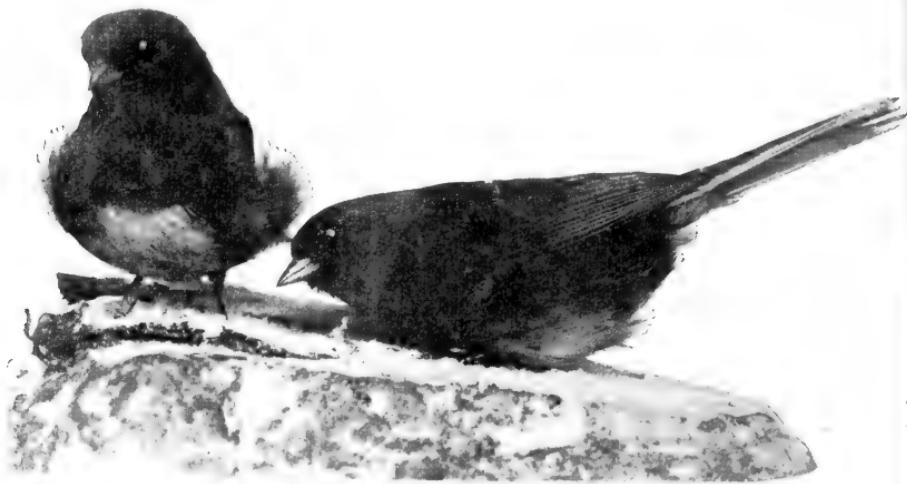
The song sparrow is among our earliest arrivals in the spring. On our way to school some crisp morning in March, our hearts are thrilled by the bright, cheery song of this bird. The song characterizes the bird, for he is a vivacious little fellow, seldom still except when singing, moving from place to place, giving his base-like chip which he emphasizes with a jerk of the tail. The song sparrow is one of our most common as well as one of our most beneficial birds as his food is

composed largely of injurious insects and weed seeds. In the summer time these sparrows make a business of hunting in the ground for cut worms which if allowed to live would do much damage. A few years ago when the destructive forest tent caterpillar was abundant, the song sparrow aided man in checking the ravages of this pest.

Prof. Judd of the Department of Agriculture says that taking the food habits of the song sparrow as a whole, it will be readily seen that this bird does much more good than harm and is worthy of protection and encouragement. Only two per cent. of his food consists of useful insects; and grain mostly waste amounts to only four per cent., while the seeds of various species of weeds constitute fifty per cent.

SLATE-COLORED JUNCO—(*Junco hyemalis*.)

Upper parts, throat and breast grayish slate color; belly white; sides grayish; outer feathers of the tail white; bill flesh color.



Female, similar but upper parts browner, throat and breast paler.
Length about six inches.

Resident.

Favorite Haunts. In summer time on the tops of the mountains, in late fall and winter around the buildings, highways, and fields.

Field Marks. A slate-colored bird, in flight showing conspicuously three white outer tail feathers.

Song. A simple trill, and also a faint whispering warble. The call note is a metallic chip, tsip, similar to the sound caused by striking two marbles together.

Although with us all the year the juncos are more in evidence during the fall, winter and early spring, they retire to the high elevations to breed. This species is sometimes called the snowbird or black snowbird. But the true snow bunting or snow flake is a larger bird, chiefly white in color which comes to us from the north in flocks during the winter. With a little encouragement in the way of food the juncos may be persuaded to stay around the buildings all winter. The principal food of these birds consists of the seeds of weeds and grasses, although in summer a good many insects are eaten, these forming about one half of their summer diet.

ROSE-BREASTED GROSBEAK—(*Habia ludoviciana*.)

Male, black on head, back, wings and tail; rump, under parts and three outer tail feathers white; also white spots on the wings; breast bright rose-red with a line of red extending down the lower part of the breast; bill large and thick.

Female, brownish, sparrow-like in appearance without any red; a conspicuous white line over the eye.

Length about eight inches.

Arrival. May 4 to 15.

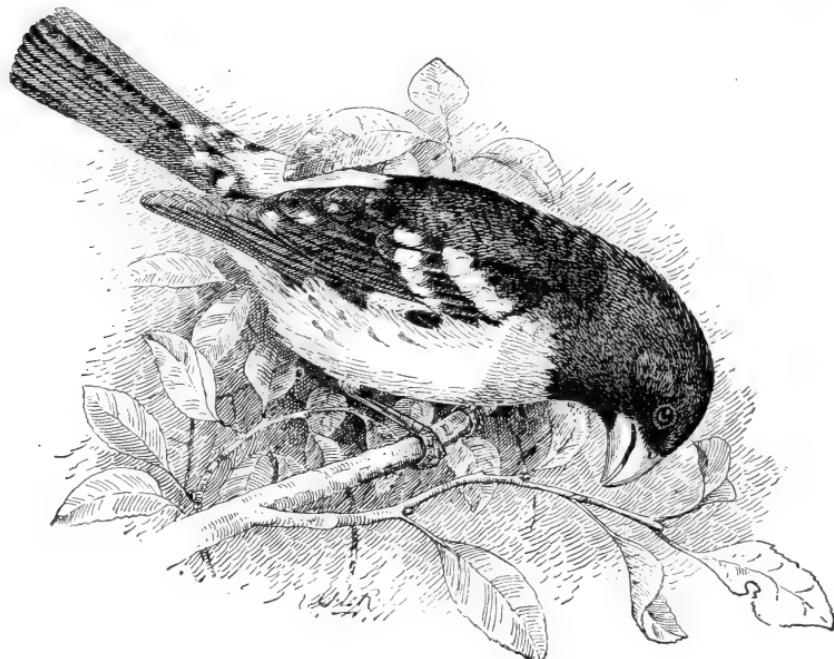
Favorite Haunts. Small growth along the banks of streams, on hill-side pastures, and edge of woods.

Field Marks. General color of black and white, with red spot on the breast; large and thick bill.

Song. A full, rolling warble resembling somewhat the robin's and the Baltimore oriole's song, but more joyous and happy than either of these. The call note is a nasal metallic peek, peek.

The rose-breasted grosbeak is numbered among our sweetest singers. The family life of the grosbeak is a happy and devoted one. The brightly colored male helps the soberly dressed female in hatching the eggs.

Evidently this task is done ungrudgingly of his own free will, considering it not beneath his lordly dignity, for I have heard him sing his joyous carol while sitting upon the eggs. The rose-breasted grosbeak is one of the very few birds that eat potato bugs. Almost every one knows by experience how much injury these pests do to the potato plants. Grosbeaks have been known to completely rid a potato field of these injurious



After U. S. Biological Survey.

beetles. The great service which these birds render the farmer has been proved beyond a doubt. If, then, later in the season the grosbeak takes a small reward for his services by eating green peas, do not kill him but remember his former good deeds. He is one of the best friends the farmer has among the birds.

Why not sow extra peas for the grosbeak's use, as a return favor for the "potato bugs" which he has destroyed?

INDIGO BUNTING—(*Passerina cyanea*.)

Male, whole body indigo blue, deeper on the head, brighter on the back; wings and tail dusky, margined with blue.

Female, upper parts uniform grayish brown; wings and tail dusky. Length about five and one-half inches.

Arrival. May 14 to 22.

Favorite Haunts. By the roadsides and in clearings.

Field Marks. A blue bird about the size of a canary. Female, sparrow-like in appearance with blue tints on shoulders and tail.



Song. Sweet but weak, "Tahe, tahe, tahe, tshay." Mr. Chapman hears him say; "July, July, summer—summer's here; morning, noontide, evening, list to me."

"Chrit-ty—chrit-ty—chrit-ty, chrit, chrit, chrit, chree."

There are three birds which sing during the middle of a hot summer's day when other birds are quiet, the wood pewee, the indigo bird and the red-eyed vireo. Perched on the tip top of a tree or upon the telephone and telegraph wires, the indigo pours forth his song. Sometimes in early evening he mounts high into the air and then descending with fluttering wings he sings his joyous song.

The indigo birds are sensitive and suspicious and take the discovery of their nests much to heart. Their fears are justified, however, for often the faintest pathway through the bushes reveals the nest to the birds' four-footed enemies.

The indigo does his share of good in destroying grasshoppers, caterpillars and canker worms.

SCARLET TANAGER—(*Piranga erythromelas.*)

Male, whole body scarlet with black wings and tail. Female, upper parts light olive green; wings and tail dusky brown; under parts greenish yellow.



Length about seven inches.

Arrival. May 10 to 20.

Favorite Haunts. In the woods.

Field Marks. A bird with a bright scarlet colored body having black wings and tail.

Song. Mellow and cheerful, "Pshaw! wait-wait-wait for me, wait!"

Note, chip churr.

The scarlet tanager of all the birds that visit us is the most brilliantly colored. This bird is sparingly common in Vermont. Living in the woods and retiring in its habits, the tanager is more plentiful than he appears to be. Sometimes, however, he comes out into the open and may be seen in the orchard and shade trees. The male appears to be conscious of his conspicuous colors and tries, generally successfully, to keep branches of trees or leaves between you and himself. Besides being an object of beauty the scarlet tanager is a beneficial bird, destroying many kinds of insects such as flies, caterpillars, beetles, grasshoppers and spiders.

CLIFF SWALLOW—(*Petrochelidon lunifrons.*)

Forehead whitish, crown steel-blue, throat and side of the head chestnut; a brownish gray ring around the neck; a steel-blue patch on brown breast, belly white; back steel-blue; a brown patch at the roots of the tail; tail almost square.

Length about six inches.

Arrival. April 29 to May 15.

Favorite Haunts. In the air, and about farm buildings.

Field Marks. Tail slightly forked, almost square; a brown patch at the roots of the tail; a chestnut band across the breast. Smaller than the barn swallow.

Note. A prolonged "twitter."

"One swallow does not make a summer" but we hail with delight the coming of the swallows in the spring-time for then we feel sure that warmer weather is at hand, as they are the first birds that reach us from the far away tropical regions. The eave swallow, as he is more

commonly called, is familiar to almost every farmer's boy. He has often watched this bird gathering pellets of mud, carrying them under the eaves of the barn where the gourd-shaped nest is built. The cliff swallow lives in colonies. The farmer about whose buildings the swallows nest should consider himself highly favored. The cliff swallow eats enor-



mous quantities of winged ants, mosquitoes, beetles, flies, wasps, locusts and other insects.

BARN SWALLOW—(*Chelidon erythrogaster.*)

Forehead, throat and upper breast chestnut rufous; rest of under parts washed with the same color; upper parts shining steel blue; tail long and deeply forked.

Length about seven inches.

Arrival. April 22 to May 15.

Favorite Haunts. In the air, on roofs of buildings, on telegraph and telephone wires.

Field Marks. The swallow having the long and *deeply* forked tail.

Note. "A soft and affectionate 'wit, wit.'

The barn swallow is the first of the swallows to greet us in the spring. This species is not so local in its distribution or so social in its disposition as the bank and cliff swallows.



After U. S. Biological Survey.

More commonly the nest is placed on the rafters in the inside of a barn, but sometimes the nesting site of the cliff swallow is chosen. As a rule the barn swallow flies lower than the other swallows, skimming along gracefully in search of food only a few feet from the ground.

Mr. William Brewster says of the barn swallows: "There is no evil blended with the benefits they confer upon man; they destroy the insects

that annoy his cattle, injure his fruit trees, sting his fruit or molest his person."

Too many of the modern barns are built so that they shut out these birds. A wise farmer will leave opening for the swallows.

BANK SWALLOW—(*Clivicola riparia*.)

Upper parts brownish gray; throat white; a dark band across the breast; wings and tail dusky.

Length about five inches.

Arrival. April 25 to May 15.

Favorite Haunts. In the air, near streams.

Field Marks. The smallest of our swallows; dull of color, showing no metallic lustre.

Note. A twitter, a squeak.



The bank swallow is locally distributed throughout Vermont wherever conditions are favorable for nesting. In a river bank or railroad cut where the soil is not too loose or too compact this bird excavates a hole two or three feet in length at the end of which is placed a loosely constructed nest of grass and feathers. These birds have been known to use piles of sawdust instead of sand banks for their nesting sites. This species is social, living together in colonies. They evidently become

attached to places. I know of a river bank where hundreds of these swallows have nested for years.

Being a bird of the air the bank swallow subsists entirely upon insects, especially mosquitoes.

CEDAR BIRD—(*Ampelis cedrorum*.)

Forehead, chin, and a line through the eye velvety black; a conspicuous crest; upper parts rich grayish brown; inner wing feathers, and sometimes tail, with small red, seed-shaped, sealing-wax-like tips; tail tipped with a yellow band.



Length about seven inches.

Arrival. March 12 to May 1.

Favorite Haunts. During the first part of the season they may be seen flying in small flocks, close together, with a quick rapid flight. In orchards and shade trees.

Field Marks. General color, satiny grayish brown with a head crest; forehead and chin and line through the eye black.

Note. "A dreamy whisper"; "a weak and wheezy whistle"; "a monotonous lisping note."

Although the cedar birds arrive early in the spring they do not begin housekeeping until the latter part of June or the first of July. It is said they show great devotion to their nest and young. This species is often called cherry bird on account of its habit of eating cherries. Investigations by the Department of Agriculture show that more than half of the whole food of the cedar bird consists of wild fruit of no value, and that they also eat caterpillars, spiders, grasshoppers and beetles.

Cedar birds have conspicuous fly-catching habits, flying out from the tree tops and taking insects in the air.

RED-EYED VIREO—(*Vireo olivaceus.*)

Crown slaty gray bordered on either side by blackish; a conspicuous white line over the eyes; the iris ruby-red; rest of upper parts, wings and tail light olive green; no wing bars; under parts pure white.



Length about six inches.

Arrival. April 24 to May 15.

Favorite Haunts. In shade trees, orchards and woodlands.

Field Marks. A general color of olive green; a conspicuous white color over the eye; iris ruby-red; a well defined slaty-gray cap, bordered by narrow black lines.

Song. "You see it—you know it—do you hear me—do you believe it?" All these strains are delivered with a rising inflection at the close, and with a pause as if waiting for an answer."—Flagg.

The red-eyed vireo is the most abundant of our vireos and, in fact, one of our most common birds. Although the bird is usually shy, it has been known to become so tame that it would take food from a person's hand when upon its nest. This vireo is called the Preacher. It is also a faithful and industrious worker, searching every nook and cranny in the trees for weevils, beetles and caterpillars. The bird has the habit of looking for food upon the under side of leaves. When in this position the gray crown and the white line over the eye may be easily seen. The red-eyed likes to sing so well that he sings during the middle of hot summer days when most other birds are quiet.

WARBLING VIREO—(*Vireo gilvus.*)

Upper parts ashy olive green; no wing bars; under parts *slightly* washed with yellowish.

Length about five and three-fourths inches.

Arrival. May 2 to 13.

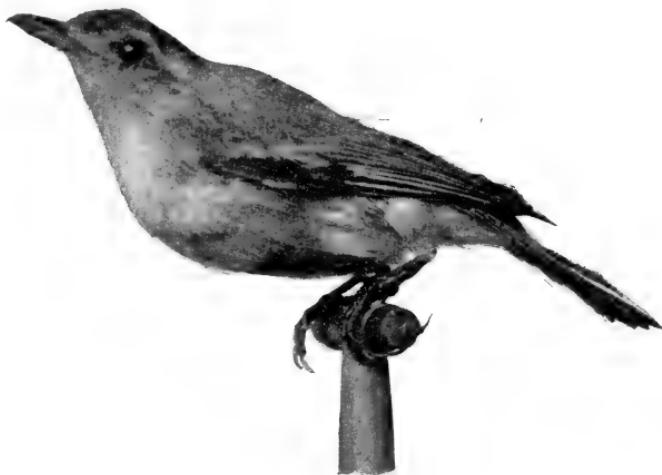
Favorite Haunts. Tops of shade trees, particularly maples and elms.

Field Marks. General color of olive green; head without gray cap.

Song. A smoothly flowing warble. Mr. Flagg hears the bird say: "Brig-a-dier—Brig-a-dier—Brigate!"

The warbling vireo is smaller than the red-eyed. Its crown is not so distinctly gray and it has not the dark line on the sides of the head. Mr. Chapman says: "Although resembling the red-eyed in general appearance its song is so different that the singing birds may never be mistaken for that species. Instead of the red-eye's broken, rambling recitative, the song of the warbling vireo is a firm, rich, continuous warble with a singular alto undertone."

The warbling vireo rids the orchards and shade trees of injurious insects.



The yellow-throated vireo which is also quite common in Vermont may be distinguished from the other species by its bright yellow throat and breast.

YELLOW WARBLER—(*Dendroeca aestiva*.)

Male, upper parts bright greenish yellow, brighter on the crown; wings olive-brown edged with yellow; tail reddish brown; under parts bright yellow streaked with reddish brown.

Female, duller with streaks on breast faintly marked or absent.

Length about five inches.

Arrival. May 1 to 14.

Favorite Haunts. Undergrowths near streams, but may be found in low bushes along highways and railways, and near the houses.

Field Marks. General color of yellow all over.

Song. "We-chee, chee, chee, cher wee," or "Sweet-sweet-sweet-sweet-sweet-sweeter."

This species is probably our most common warbler and its color easily distinguishes it. The yellow warbler is bright, active and happy, and while feeding sings its pleasing song. This bird is not always happy

however, for the yellow warbler appears to be the favorite victim of the reprobate cowbird. Sometimes in their efforts to get rid of the intruder's egg, the warblers will build a layer or another nest over the unwelcome egg. "The food habits of the yellow warbler are all that



could be desired. It freely visits farm premises and feeds on minute insects of many kinds." Spiders, moths, bugs, flies, canker worms and grasshoppers are included in this warbler's bill of fare.

CHESTNUT-SIDED WARBER—(*Dendroica pensylvanica*.)

Crown bright yellow; a black line behind the eye; front part of cheeks black; back streaked with black, and margined with bright olive green; wing bars yellowish white; tail black; sides chestnut; under parts white.

Female, similar but somewhat duller in color.

Length about five inches.

Arrival. April 25 to May 15.

Favorite Haunts. In briar tangles, shrubbery and bushes, in pastures and especially in clearings and along the highways.

Field Marks. The combination of yellow crown and chestnut sides will easily distinguish this warbler.

Song. "Chee-chee-chee-chee, chee ar." He seems to say, "I am the chestnut-sided," with a rising inflection on the last syllable.

The chestnut-sided lives nearer the ground than the red-start which in actions it resembles. Many times I have found the nest of this species placed in a low bush within a few feet of the wheel track.



The warbler family of whose very existence many people are ignorant, is represented in Vermont by over thirty different species. They are almost entirely insectivorous, consequently of inestimable economic value. Dr. Elliott Cones says: "With tireless industry do the warblers befriend the human race, their unconscious zeal plays due part in the nice adjustment of nature's forces, helping to bring about that balance of vegetable and insect life without which agriculture would be vain."

BLACK-THROATED GREEN WARBLER—(*Dendroica virens.*)

Upper parts bright olive green, back sometimes spotted with black; line over the eye and cheeks bright yellow; throat and breast black; sides streaked with black; belly white, sometimes streaked with yellow; tail strikingly marked with white.

Female, similar, but the black of throat and breast more or less mixed with yellowish.

Length about five inches.

Arrival. April 30 to May 14.

Favorite Haunts. Tops of trees, especially hemlocks, pines and spruces.



Field Marks. Throat and upper breast black, sides of head bright yellow, large amount of white in the tail.

Song. A slow nasal "zee-ee-ee, zee-ah-ee." "Good Saint The-re-sa," given with a rising inflection and with a decided accent on the last syllable. "Trees, trees, mur-mur-ing trees."

This pretty warbler is a common summer resident of Vermont, being among the first of the warblers to reach us in the spring, although the winter is spent in Central America. Searching carefully the evergreen trees and singing while he works, this bird does much good in ridding the trees of injurious insects. Mrs. Wright hears the black-throated green warbler say when singing: "Will you co-ome, will you co-ome, will you?" with an emphatic pause on the last two syllables.

OVEN BIRD—(*Seiurus aurocapillus.*)

Crown golden-brown enclosed by two dark lines, rest of upper parts, wings and tail brownish olive green; no wing bars or tail patches; under parts white; the sides of the throat, breast and sides streaked with black.



Length about six inches.

Arrival. April 30 to May 12.

Favorite Haunts. On or near the ground, always in the so-called "hard woods" where there is undergrowth.

Field Marks. A golden brown patch on top of the head. *Walks* instead of hops.

On account of his thrush-like appearance the ovenbird is sometimes called the golden-crowned thrush. The bird is not a thrush, however, but belongs to the warbler family. This species is very common in Vermont, especially in the southern portion of the state. While strolling in the woods, you may see this bird walking before you. When you hear his song, you will be surprised that such a volume and intensity of sound can come forth from a bird of his size. The beautiful flight song is the climax of the ovenbird's musical efforts. As if overcome by his emotions, mounting upward with hovering flight, he bursts forth into sweet and melodious song.

MARYLAND YELLOW-THROAT—(*Geothlypis trichas.*)

Forehead and sides of the head black, bordered by grayish; rest of the upper parts, wing and tail olive green, sometimes tinged with brownish; throat and breast bright yellow, changing to whitish below.



Female, duller colored with no black on sides of the head.
Length about five and one-half inches.

Arrival. May 1 to 15.

Favorite Haunts. In moist thickets, along streams and marshy places.

Field Marks. Black forehead and sides of head; bright yellow throat and breast.

Song. "Witchery, witchery, witchery; wreechetty, wreechetty, wreechetty," or "follow me, follow me, follow me."

In actions and appearance the Maryland yellow-throat resembles somewhat a wren. With head cocked to one side and tail erect this bird will gaze inquisitively at you a moment, and then disappear into the thicket only to appear again in some other place. Saying plainly, "follow me," the happy little fellow will lead you farther on into the brambles. The yellow-throats are gentle and lovable in their manners. The male and female are very much devoted to each other. This bird is bubbling over with music and continues to sing late in the summer when other warblers are silent.

REDSTART—(*Setophaga ruticilla.*)

Male, upper parts, throat and breast shining black; flame-red on wings, tail and sides; belly pinkish white; bill and feet black.

Female, all parts which are black in the male are greenish gray in the female, and where the male is red the female is yellow.

Length about five and one-half inches.

Arrival. May 5 to 15.

Field Marks. Black throat and breast; flame-red patches on wings, tail and sides of the body.

Favorite Haunts. In undergrowths and small trees along roadsides and streams.

Song. The redstart has at least two songs, one of which sounds like "tsee, tsee, tsee," repeated in quick succession, the other "ching, ching, chee, ser wee, swee, swee-e-e."

In respect to bright colors the redstart stands next to the scarlet tanager and the Baltimore oriole. The scarlet tanager retires to the woods and is seen only occasionally, the Baltimore oriole lives chiefly in the tops of trees, but this active, bright colored warbler lives nearer the ground, in undergrowths where we may see plainly his conspicuous red and black markings.

The redstart is no idler. The bird seems to be moving constantly, darting back and forth, up and down, and around about in his search for insects. The male seems to know that he is beautiful. He will spread his tail like a fan and assume attitudes that will best display his



bright colors. The male does not reach full plumage until the third year. In the first year he has the colors of the female, in the second the plumage is mottled with black.

CATBIRD—(*Galeoscoptes carolinensis.*)

Body slaty gray; crown and tail black; a reddish brown patch under the base of the tail.

Length about nine inches.

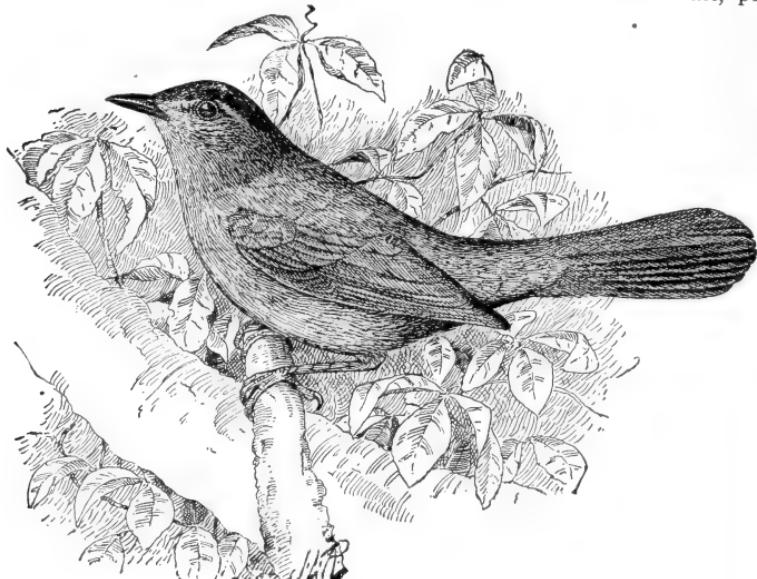
Arrival. April 29 to May 12.

Favorite Haunts. In the vicinity of houses, along highways, and in the dense growth along banks of streams.

Field Marks. In color slaty gray, in size somewhat smaller than the robin, having a brown patch under the tail.

Song. A brilliant recitative, varied and inimitable, beginning, "Prut, prut, coquillicat! really, really coquillicat! Hey, coquillicat! Hey, victory!" Note resembles the mewing of a cat.

Catbirds easily become acquainted with man and often build their nests within a few feet of the house. It is interesting to study the habits of the catbird, for he is continually delighting the observer by his actions, constantly displaying new traits of character and individuality. His food varies according to the season. He eats berries and small fruit, prefer-



After U. S. Biological Survey.

ring the wild to the cultivated when he can get them. Taking as a whole the time the catbird stays with us his food consists largely of insects. For every piece of fruit the catbird takes he destroys thousands of injurious insects. The catbird has an interesting habit of mimicing the notes and songs of other birds.

WHITE-BREASTED NUTHATCH—(*Sitta carolinensis*.)

Top of head and front part of the back shining black; rest of upper parts bluish gray; some black and white marks on the wings and tail; sides of head and under parts white, turning rusty on the belly; bill strong, straight and sharp pointed.

Length about six inches.

Resident.

Field Marks. Back slate-blue with top of head black; sides of head and under parts white.

Favorite Haunts. On the trunks of trees.

Note. "Quank-quank-quank!"



In winter time this nuthatch may be seen with flocks of chickadees and woodpeckers. The bird shows originality and freedom in his actions as he wanders over the tree in search of food. He comes down the trunk head downwards as easily and as unconcernedly as he goes upward, running along on the under side of a limb with perfect ease. Though retiring in disposition in the summer time, during the winter the nuthatch will come to the window shelves for food. The nuthatches are skillful doctors, very useful to man, for they look after the health of the trees in orchards and forest. They work without pay and should be encouraged and protected.

CHICKADEE—(*Parus atricapillus.*)

Top of head, back of the neck and throat shining black; sides of the head and neck white; back ashy gray, breast white; belly and sides washed with cream buff; wing and tail feathers edged with white.

Length about five inches.

Resident.

Favorite Haunts. Roaming about in orchards and woods.

Field Marks. Black throat and top of head, white cheeks.

Note. "Chickadee-dee-dee-dee." Also a whistled, long drawn "pee-wee."



After U. S. Biological Survey.

The chickadee is such a little bunch of feathers we wonder how he keeps warm during the cold winter, but when we watch a flock of these birds constantly moving from limb to limb, assuming all manner of positions in their search for food, we conclude that the bird's activity must have a great deal to do with it. The chickadee is a bright, cheery, inquisitive little fellow. Often his curiosity will lead him to approach within a few feet of you. Although small the chickadee is a very brave bird. Several times when examining the nest, the little mother would cling bravely to her nest, not flying away until I touched her with my hand. They roam in flocks during the fall and winter but when spring comes they separate in order to build their nests and rear their young.

The chickadee is one of the farmers' best friends. He benefits the trees of the orchard, field, and forest by eating the eggs and larvae of the many injurious insects which injure them. More than four hundred and fifty eggs of plant lice have been known to be taken by one bird in a single day. Chickadees may be attracted to the orchard and the vicinity of the house by hanging pieces of suet, bones and meat to the trees in winter time. If you should do this, very often they will not go back into the woods to nest, but will remain in the vicinity during the summer. It is to the advantage of the farmer and fruit grower to encourage the presence of these birds.

WILSON'S THRUSH.—(*Turdus fuscescens*.)

Upper parts, wings and tail nearly uniform cinnamon brown; center of throat white; sides of throat and breast a delicate cream buff, spotted with small wedge-shaped spots of nearly the same color as the back.

Length about seven and a half inches.

Arrival. May 1 to 20.

Favorite Haunts. In the shrubbery beside the highways, also in low moist woods where there is plenty of undergrowth.

Field Marks. Upper parts uniform cinnamon-brown; sides almost white.

Song. Ridgway describes it thus: "Tawee'l'ah-tawee'l'ah, twil-ah, twil-ah." The call note is a mournful whistled "whee-u."

Wintering in Central America the Wilson's thrush arrives later and departs earlier than the hermit. It is not so retiring in disposition as the latter bird. This thrush also is a sweet singer. Mr. Chapman says: "The veery's song is a weird, ringing monotone of blended alto and soprano tones. Neither note nor letter can tell one of its peculiar quality; it has neither break nor pause and seems to emanate from no one place. If you can imagine the syllables ree-r-r-hu repeated eight or nine times around a series of intertwining circles, the description may enable you to recognize the veery's song." Mrs. Wright suggests that the Wilson be called the "Echo Thrush" as that name would reveal its identity to any one who ever heard the song.



Last summer another bird lover and I enjoyed a delightful experience with the thrushes when we heard the Wilson, hermit and wood thrush all singing at the same time.

HERMIT THRUSH—(*Turdus aonalaschkae pallasii*.)

Upper parts olive brown, sometimes cinnamon brown; tail reddish brown of distinctly different color from the back; throat and breast with a slight buffy tinge; feathers of the sides of the throat with wedge-shaped black spots at their tips; those of the breast with large, rounded spots; middle of the belly white; sides brownish gray or brownish ashy.

Length about seven inches.

Arrival. April 7 to May 10.

Favorite Haunts. In moist woods, especially where evergreen trees are abundant.

Field Marks. The hermit may be distinguished from the other thrushes by the tail which is brighter colored than the back. This bird has the habit of lifting the tail slightly at intervals, especially after alighting.

Song. Flute-like, ascending "O spherical, spherical, O holy, holy, O clear away, clear away, O clear up, clear up."—Burroughs.



The hermit is the first of the thrushes to come to us in the spring and the last to leave in the fall. This bird is the prince of songsters. The songs of other birds appeal to the ear, that of the hermit thrush to the soul, pure, beautiful, uplifting. Fortunately at my boyhood home in Newfane the hermit thrushes are plentiful. Many times in the twilight of a summer's evening have I been thrilled and enraptured by their

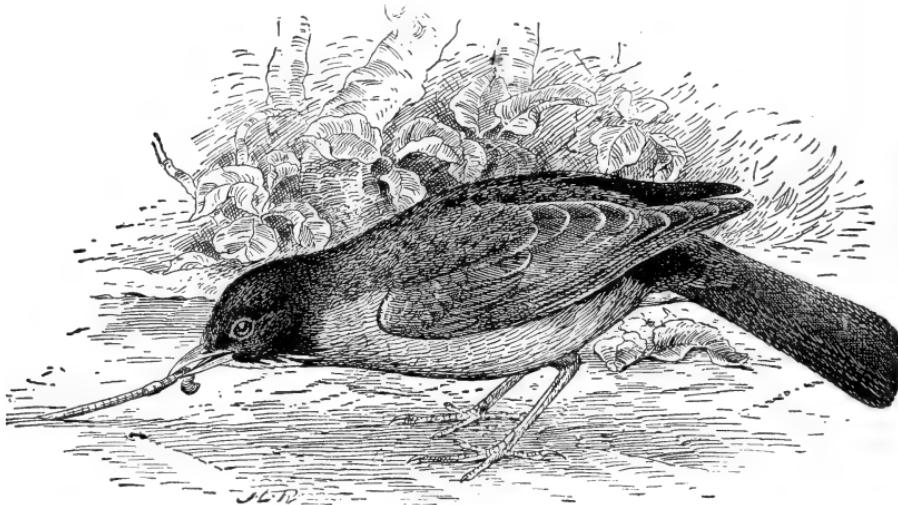
singing. A bird close by me would begin the evening concert, soon followed by another at a little distance, and then still another farther on would take up the refrain, until a chorus of six or eight voices could be heard. The song cannot well be described. It must be heard in order to be appreciated.

ROBIN—(*Merula migratoria.*)

Top and sides of the head black, a white spot over the eye; rest of the upper parts grayish slate-color; tail black, the outer feathers with white spots at their tips; throat white, spotted with black; under parts bright reddish brown.

Length about ten inches.

Arrival. March 4 to April 7.



After U. S. Biological Survey.

Favorite Haunts. About dwellings, along highways, in orchards and fields.

Field Marks. Blackish head and reddish breast.

Song. A vigorous melody, cheerful but somewhat lacking in variety: "Do you think what you do, do you think what you do, do you think."

"Cheer-i-ly, cheer-i-ly, cheer-i-ly, cheer up."

The robin is one of our most abundant summer residents and is known to almost everyone. He comes to us in March when signs of winter are still lingering. How it stirs our hearts after the long winter months to see our first robin. How joyfully we exclaim: "The robins have come." The robin is one of a number of birds which seem to act as scouts to the great army of bird life which comes into and passes through Vermont during the migration period.

Being friendly and sociable these birds give us a good opportunity to study their habits, often building their nest in houses, fence posts or trees near our houses. The first opportunity the school children have, I wish they would study the family life of a pair of robins. Watch them as they build their nest; notice the protecting care of the loving husband, and the faithfulness of the trustful wife as she sits upon the eggs; observe how industriously the father and mother work to fill the mouths of their young, continually asking for food; and note with what wisdom and patience the parents teach them to fly.

The robin sometimes troubles farmers and gardeners by eating strawberries, currants and other small fruits, but he more than offsets this by eating caterpillars, grasshoppers and other insects injurious to the farmer. The Department of Agriculture upon examination of the stomachs of 500 robins collected from different parts of the country found that less than 8 per cent. of the robin's food was composed of cultivated fruits, while wild fruit constituted more than 43 per cent. Thus we see that nearly one half of the food is animal, consisting of worms and insects.

There are two records of robins remaining with us throughout the winter, one at St. Johnsbury, the other at Brattleboro.

BLUEBIRD—(*Sialia sialis*.)

Upper parts, wings and tail bright blue; throat and breast reddish brown; belly white.

Female, upper parts grayish blue; under parts duller,

Length about seven inches.

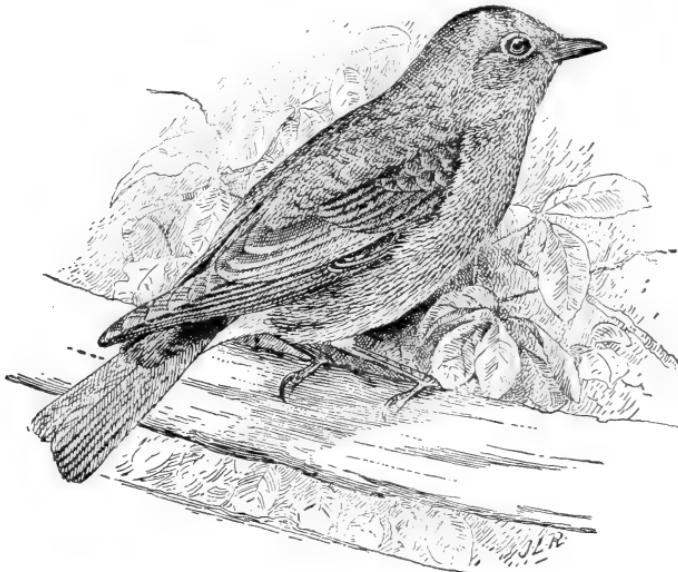
Arrival. March 1 to 25.

Favorite Haunts. Around the orchards, farms buildings and highways.

Field Marks. A blue body with a reddish breast.

Song. A sweet plaintive warble seeming to say: "Dear, dear, *think* of it, *think* of it," or "Purity, purity" or "Trually, tru-al-ly." Fall call-note is "Far-away, far-away," or "Tur-wee, tur-wee."

The bluebird is also a "harbinger of spring," by my observations appearing a few days before the robin. This species is sparingly common throughout the state. The bluebirds become much attached to their surroundings, returning to the same locality year after year. I knew of bluebirds nesting in a hollow apple tree for at least ten years. I do not positively know, but I like to think, that it was the same pair of birds which showed such fondness for their home.



After U. S. Biological Survey.

This beautiful bird may be attracted to the vicinity of the buildings by placing bird houses in the trees. By making the bird houses without perches at the entrance, the English sparrow may be prevented from occupying them.

The bluebird has been called the banner bearer of birdland, loyally floating the national tri-color, red, white and blue.

This bird is useful to man because he gets his living from the insects of the air, the caterpillars of the trees, and from the grasshoppers on the ground.

ENGLISH SPARROW—(*Passer domesticus*.)

Crown gray, bordered from the eye backward and on the nape by chestnut; portions of the wing tipped with white; back streaked with black and chestnut; middle of the throat and breast black; sides of throat white.

The English sparrow was first introduced into the United States in 1850, when eight pairs were brought over from England to Brooklyn, New York. During the next twenty years these birds were imported in large numbers, being distributed in the cities of the eastern states chiefly, but also in Ohio and Texas. They were introduced for the purpose of destroying canker worms and all kinds of leaf-devouring insects. Like many featherless bi-peds which flock to our shores, these birds also seem to have laid aside the habits and customs of their native country. But in the case of the bird, the change has been for the worse instead of the better. In the old country, a beneficial insect destroyer, in the new, he has become a pest on account of certain well-known characteristics. The sparrow destroys the buds and blossoms of fruit and shade trees; he eats the fruit of orchard and garden, being especially fond of peas; he attacks the grain fields from the time the grain is put into the ground until it is gathered into the barns. The stomach of a single cuckoo examined by experts at Washington contained as many insects as were found in the stomachs of over five hundred English sparrows. Possibly these faults of the sparrow would be overlooked if it were not for the fact that another charge, the most serious of all, is made against him. It is this: that he drives away the native birds from the orchards, shade-trees, gardens and buildings. Being quarrelsome and pugnacious by nature, the English sparrow considers the rightful inhabitants of the haunts which he pre-empted as intruders and forthwith proceeds to drive them from the neighborhood, so that in many places the incessant chattering of this noisy sparrow is heard instead of the sweet and pleasing songs of other birds. Bluebirds, wrens, purple martins, native spar-

rows, orioles and vireos are among the many species disturbed by this foreigner. However, the English sparrow is not entirely degenerate. It has been proven that he does eat a few insects, caterpillars, moths and beetles. The young are fed quite largely on insects. But everything taken into consideration, the evil which this sparrow does is much greater than the good.

BIRDS OF BRATTLEBORO AND VICINITY.

Observed by Mrs. Elizabeth B. Davenport.

			Earliest date of arrival
Common Loon	S. R.	Rare	
Red-throated Diver	W. V.	Rare	
Brunnich's Murre		Stray	
Herring Gull		Stray	
Am. Merganser	M.		
Mallard	M.		March 11
Black Duck	M.		
Wood Duck	S. R.	Rare	
Canvasback	M.	Rare	Fall
Rufflehead	M.	Not Common	Fall
Canada Goose	M.	Common	
Great Blue Heron	S. R.	Not Common	March 10
Green Heron	S. R.	Not Common	April 18
Coot	M.	Not Common	May 5
Woodcock	S. R.	Common	Spring
White-rumped Sandpiper	M.	Not Common	April 8
Solitary Sandpiper	M.	Very Rare	May
Bartramian Sandpiper	S. R.	Not Common	May 14
Spotted Sandpiper	S. R.	Common	April 25
Killdeer	M.		May
Quail	R.	Introduced	
Ruffed Grouse	R.	Common	
Canada Grouse	R.	Not Common	
Marsh Hawk	S. R.	Not Common	
Sharp-shinned Hawk	S. R.	Not Common	April
Cooper's Hawk	S. R.	Not Common	March 19
			April

M—migrant, R—resident, S. R.—summer resident, W. V.—winter visitant.

Am. Goshawk	M.	Rare	
Red-tailed Hawk	S. R.	Common	April
Red-shouldered Hawk	S. R.	Common	April
Golden Eagle	R.	Very Rare	
Pigeon Hawk M. and rarely	S. R.		April
Sparrow Hawk	S. R.	Common	March 18
American Osprey	S. R.	Not Uncommon	April
Barred Owl	R.	Not Common	
Great Gray Owl	W. V.	Rare	
Screech Owl	R.	Common	
Snowy Owl	W. V.	Rare	
Yellow-billed Cuckoo	S. R.	Not Common	May 3
Black-billed Cuckoo	S. R.	Not Common	May
Belted Kingfisher	S. R.	Common	April 16
Hairy Woodpecker	R.	Not Common	
Downy Woodpecker	R.	Common	
Yellow-bellied Sapsucker	S. R.	Uncommon	April
Pileated Woodpecker	R.	Uncommon	
Red-headed Woodpecker	S. R.	Rare	May
Flicker	S. R.	Common	April 15
Whippoorwill	S. R.	Not Common	May 5
Nighthawk	S. R.	Common	May
Chimney Swift	S. R.	Abundant	April 30
Ruby-throated Hummingbird	S. R.	Common	May 15
Kingbird	S. R.	Common	April 19
Great-crested Flycatcher	S. R.	Not Common	May 15
Phoebe	S. R.	Common	March 19
Olive-sided Flycatcher	M.		
Wood Pewee	S. R.	Common	May 9
Yellow-bellied Flycatcher	M.		May 21
Least Flycatcher	S. R.	Common	April 29
Prairie Horned Lark	S. R.	Rare	April 29
Blue Jay	R.	Common	
Am. Crow	S. R.	Common	May 9
Bobolink	S. R.	Common	March 28
Cowbird	S. R.	Common	April 27
Red-winged Blackbird	S. R.	Common	
Meadow Lark	S. R.	Rare	
Baltimore Oriole	S. R.	Common	April 24
Purple Grackle	S. R.	Very Rare	April 23
Bronze Grackle	S. R.	Not Uncommon	March 10
Pine Grosbeak	W. V.		Oct.
Purple Finch	S. R.	Common	March 8
Am. Crossbill	R.	In flocks	
Redpoll	M.		March 30
Am. Goldfinch	R.	Not Abundant	May
Pine Siskin	W. V.	Irregular	
Snowflake	W. V.	Irregular	
Vesper Sparrow	S. R.	Common	April 21

Savanna Sparrow	S. R.	Nat Common	April 15
Grasshopper Sparrow	S. R.	Rare	April
White-throated Sparrow	S. R.	Rare	April 20
Tree Sparrow	W. V.	Common	Nov.
Chipping Sparrow	S. R.	Common	April 14
Field Sparrow	S. R.	Common	April 16
Slate-colored Junco	M. and W. V.	Common	Oct.
Song Sparrow	S. R.	Abundant	March 19
Swamp Sparrow	S. R.	Rare	
Fox Sparrow	M.	Not Uncommon	March 20
English Sparrow	R.	Abundant	
Towhee	S. R.	Common	April 28
Cardinal Bird		Stray	
Rose-breasted Grosbeak	S. R.	Common	May 4
Indigo Bunting	S. R.	Common	May 16
Scarlet Tanager	S. R.	Not Abundant	May 11
Purple Martin	S. R.	Not Common	April 15
Cliff Swallow	S. R.	Not Common	May 1
Barn Swallow	S. R.	Common	May 1
Tree Swallow	S. R.	Not Common	April 30
Bank Swallow	S. R.	Common	April 29
Rough-winged Swallow		Very Rare	
Cedar Waxwing	S. R.	Common	March 12
Bohemian Waxwing	M.	Rare	April
Northern Shrike	W. V.	Unusual	Oct.
Red-eyed Vireo	S. R.	Abundant	April 24
Philadelphia Vireo	S. R.	Rare	June
Warbling Vireo	S. R.	Common	May 7
Yellow-throated Vireo	S. R.	Not Uncommon	May 8
Blue-headed Vireo	S. R.	Not Common	April 23
Black and White Warbler	S. R.	Abundant	April 25
Golden-winged Warbler	M.		April 25
Nashville Warbler	M. and S. R.	Rare	April 29
Tennessee Warbler	M.		
Parula Warbler	M. and S. R.	Rare	May 2
Cape May Warbler	M.	Rare	May 20
Black-throated Blue Warbler	M. and S. R.		
Summer Warbler	S. R.	Not Common	May 1
Myrtle Warbler	M.	Common	May 5
Magnolia Warbler	S. R. and M.	Abundant	April 29
Chestnut-sided Warbler	S. R.	Rare	
Bay-breasted Warbler	M.	Rare	April 21
Blackpoll Warbler	M.	Common	May 16
Blackburnian Warbler	S. R.	Not Common	May 15
Black-throated Green Warbler	S. R.	Not Numerous	May 1
Pine Warbler	S. R.	Rare	April 30
			April 28

Palm Warbler	M.	Rare	April 28
Yellow Palm Warbler	M.	Common	May
Oven Bird	S. R.	Not Abundant	April 30
Water Thrush	M.	Rare	April 20
Connecticut Warbler	M.	Rare	May
Mourning Warbler	M.	Rare	May 9
Maryland Yellow Throat	S. R.	Common	May 9
Wilson's Warbler	M.	Rather Common	May 17
Canadian Warbler	M.	Common	May 8
Redstart	S. R.	Rare	Fall
Am. Pipit	S. R.	Common	April 29
Catbird	S. R.	Common	May 10
Brown Thrasher	S. R.	Not Common	May 9
House Wren	S. R.	Rare	April
Winter Wren	M.	Rare	April
Long-billed Marsh Wren	M.	Not Common	Feb.
Brown Creeper	W. R.	Abundant	
White-breasted Nuthatch	R.		
Red-breasted Nuthatch	W. V. and R.	Not Common	
Chickadee	R.	Abundant	
Golden-crowned Kinglet	W. V.		Oct.
Ruby-crowned Kinglet	M.	Common	April 10
Wood Thrush	S. R.	Common	May 8
Wilson's Thrush	S. R.	Common	May 1
Olive-backed Thrush	M.	Rare	May 14
Hermit Thrush	S. R.	Abundant	April 10
Am. Robin	S. R.	Very Rare	March 4
Bluebird	S. R.	Common	Feb. 24

LIST OF BIRDS ABOUT ST. JOHNSBURY.

Taken from the Records of the Fairbanks Museum, Compiled by Miss Isabel M. Paddock. These Observations Cover a Period of Ten Years.

Date of Arrival

Spotted Sandpiper	May 9-23
Ruffed Grouse	R.
Marsh Hawk	S. R.
Red-tailed Hawk	S. R.
Red-shouldered Hawk	S. R.
Barred Owl	R.
Screech Owl	R.
Black-billed Cuckoo	May 13-30
Belted Kingfisher	April 13-May 10
Hairy Woodpecker	R.
Downy Woodpecker	R.

Yellow-bellied Sapsucker	March 13-April 25
Flicker	April 15-29
Nighthawk	May 12-June 10
Chimney Swift	April 28-May 13
Ruby-throated Hummingbird	May 8-29
Kingbird	May 5-15
Crested Flycatcher	May 10-23
Phoebe	March 22-April 4
Olive-sided Flycatcher	May 22-29
Wood Pewee	May 9-22
Yellow-bellied Flycatcher	May 14-22
Traill's Flycatcher	May 21-31
Horned Lark	W. V.
Blue Jay	R.
Crow	March 2-17
Bobolink	May 10-22
Cowbird	March 20-April 27
Red-winged Blackbird	March 28-April 18
Baltimore Oriole	May 2-13
Bronzed Grackle	March 21-April 28
Pine Grosbeak	W. V.
Purple Finch	March 20-April 22
White-winged Crossbill	W. V.
Am. Goldfinch	R.
Pine Siskin	M. March 16
Snow Flake	W. V.
Vesper Sparrow	April 4-29
Savanna Sparrow	April 16-May 4
White-throated Sparrow	April 21-May 7
Tree Sparrow	R.
Chipping Sparrow	April 12-22
Field Sparrow	May 10-30
Slate-colored Junco	March 20-April 9
Song Sparrow	March 11-April 11
Fox Sparrow	M. March 27-May 9
Rose-breasted Grosbeak	May 7-14
Indigo Bunting	May 14-22
Scarlet Tanager	May 9-20
Purple Martin	May 11-18
Cliff Swallow	April 29-May 10
Barn Swallow	April 19-May 17
Tree Swallow	April 10-May 5
Bank Swallow	April 22-May 23
Cedar Waxwing	April 3-June 1
Northern Shrike	R.
Red-eyed Vireo	May 1-15
Warbling Vireo	April 30-May 13
Yellow-throated Vireo	May 8-20
Black and White Warbler	April 28-May 9

Nashville Warbler	May 9-12
Parula Warbler	May 8-10
Yellow Warbler	May 2-14
Myrtle Warbler	April 12-May 2
Magnolia Warbler	May 2-21
Chestnut-sided Warbler	May 3-17
Blackburnian Warbler	May 7-14
Black-throated Green Warbler	May 5-14
Connecticut Warbler	May 11-15
Maryland Yellow Throat	May 5-15
Wilson's Warbler	May 10-15
Canadian Warbler	May 5-24
Am. Redstart	May 3-6
Oven Bird	May 7-13
Catbird	May 5-13
House Wren	April 24-May 22
Brown Creeper	R.
White-breasted Nuthatch	R.
Red-breasted Nuthatch	R.
Chickadee	R.
Golden-crowned Kinglet	M. March 30-April 16
Ruby-crowned Kinglet	M. March to May
Wilson's Thrush	April 16-May 24
Hermit Thrush	April 12-May 17
Robin	March 9-April 9
Bluebird	March 6-April 6

BIRDS OF BENNINGTON AND VICINITY.

Observed by Dr. and Mrs. L. H. Ross During the Years 1902-'03-'04.

		Date
	Stray	Feb. and Oct.
Holboell Grebe	R.	Not Common
American Merganser	S. R.	Rare
American Bittern	S. R.	Rare
Least Bittern	S. R.	Rare
Great Blue Heron	S. R.	Rare
Green Heron	S. R.	Rare
Sora Rail	M.	Rare
Am. Woodcock	S. R.	Common
Pectoral Sandpiper	S. R.	Rare
Least Sandpiper	S. R.	Rare
Bartramian Sandpiper	S. R.	Not Common
Spotted Sandpiper	S. R.	Common
Bob White	R.	Common
Ruffed Grouse	R.	Common
Marsh Hawk	S. R.	Common
Sharp-shinned Hawk	S. R.	Common

Am. Goshawk	M.		
Red-tailed Hawk	R.	Rare	
Broad-winged Hawk	S. R.	Rare	
Pigeon Hawk	S. R.	Rare	
Sparrow Hawk	S. R.	Common	
Am. Osprey	M.	Rare	April 7
Screech Owl	R.	Common	April 22
Yellow-billed Cuckoo	S. R.	Rare	
Black-billed Cuckoo	S. R.	Common	
Belted Kingfisher	S. R. and R.	Common	June 16
Hairy Woodpecker	R.	Not Common	April 10
Downy Woodpecker	R.	Common	
Yellow-bellied Sapsucker	M.	Rare	
Red-headed Woodpecker	S. R.	Not Common	May 17
Golden-winged Woodpecker	S. R.	Abundant	April 5
Whippoorwill	S. R.	Common	
Nighthawk	S. R.	Rare	May 28
Chimney Swift	S. R.	Abundant	April 26
Ruby-throated Hummingbird	S. R.	Common	May 21
Kingbird	S. R.	Abundant	May 3
Great-crest Flycatcher	S. R.	Common	
Phoebe	S. R.	Abundant	March 22
Olive-sided Flycatcher	S. R.	Rare	
Wood Pewee	S. R.	Common	May 11
Yellow-bellied Flycatcher	S. R.	Rare	May 11
Acadian Flycatcher	S. R.	Very Rare	July
Least Flycatcher	S. R.	Common	May 3
Horned Lark	W. V. and S. R.	Not Common	March, June
Blue Jay	R.	Common	
Am. Crow	R.	Common	
Bobolink	S. R.	Abundant	May 8
Cowbird	S. R.	Not Common	April 26
Red-winged Blackbird	S. R.	Abundant	March 27
Meadow Lark	S. R.	Abundant	March 19
Orchard Oriole	S. R.	Not Common	
Baltimore Oriole	S. R.	Common	May 8
Rusty Blackbird	M.	In flocks	April, Sept.
Purple Grackle	S. R.	Common	March 20
Pine Grosbeak	W. V.	Not Common	Dec. to March
	Pair with young	seen July 4, 1904.	
Purple Finch	S. R.	Not Common	April 23
American Crossbill	S. R.	Very Rare	June 19, 1903
Am. Goldfinch	R.	Common	
Snow Flake	W. V.	Common	Dec. to March
Vesper Sparrow	S. R.	Abundant	April 5
Grasshopper Sparrow	S. R.	Common	April 24
White-crowned Sparrow	M.	Not Common	Sept. and Oct.
White-throated Sparrow	S. R.	Not Common	April
Tree Sparrow	W. V.	Common	Sept. 18 to May 1

Chipping Sparrow	S. R.	Abundant	April 14
Field Sparrow	S. R.	Abundant	April 20
Slate-colored Junco			
W. V. and S. R.		Common and Not Common	
Song Sparrow	S. R.	Abundant	March 15
Fox Sparrow	M.	Not Common	March and Oct.
Towhee	S. R.	Common	May 12
Rose-breasted Grosbeak	S. R.	Not Common	June
Indigo Bunting	S. R.	Common	May 25
Scarlet Tanager	S. R.	Not Common	May 16
Cliff Swallow	S. R.	Common	May 3
Barn Swallow	S. R.	Abundant	April 26
Tree Swallow	S. R.	Common	April 26
Bank Swallow	S. R.	Not Common	
Bohemian Waxwing	Flock seen March 3 to April 6, 1903.		
Cedar Waxwing	S. R.	Common	May 18
Northern Shrike	W. V.	Not Common	Oct. to April
Red-eyed Vireo	S. R.	Abundant	May 7
Philadelphia Vireo	S. R.	Not Common	
Warbling Vireo	S. R.	Common	May 6
Yellow-throated Vireo	S. R.	Not Common	May 16
Blue-headed Vireo	S. R.	Common	May 16
White-eyed Vireo	S. R.	Rare	April 27
Black and White Warbler	S. R.	Common	May 4
Nashville Warbler	S. R.	Common	May 21
Yellow Warbler	S. R.	Abundant	May 6
Black-throated Blue Warbler	S. R.	Not Common	May 11
Myrtle Warbler	M.	Abundant	
Magnolia Warbler	M.	Common	
Chestnut-sided Warbler	S. R.	Abundant	May 11
Black-poll Warbler	M.	Rare	
Blackburnian Warbler	M.		
Black-throated Green Warbler	S. R.	Not Common	May 11
Pine Warbler	S. R.	Rare	
Palm Warbler	M.		
Yellow Palm Warbler	M.		
Oven Bird	S. R.	Common	May 12
Mourning Warbler	S. R.	Not Common	May 16
Maryland Yellow Throat		Abundant	May 11
Yellow-breasted Chat	S. R.	Rare	May 11
Wilson's Warbler		Rare	May 14
Am. Redstart	S. R.	Abundant	May 10
Catbird	S. R.	Abundant	May 10
Brown Thrasher	S. R.	Not Common	May 6
Brown Creeper	R.	Not Common	
White-breasted Nuthatch	R.	Common	
Chickadee	R.	Common	

Golden-crowned Kinglet	M.	Not Common	April and Oct.
Ruby-crowned Kinglet	M.	Not Common	April and Oct.
Wood Thrush	S. R.	Common	
Wilson's Thrush	S. R.	Abundant	May 10
Olive-backed Thrush	S. R.	Not Common	May 11
Hermit Thrush	S. R.	Not Common	April 10
Robin	S. R.	Abundant	March 13
Bluebird	S. R.	Abundant	March 6

LIST OF BIRDS OF RUTLAND COUNTY

Embracing Observations from 1888 to 1905 by G. H. Ross. Every Bird has been Scientifically Identified.

	¹	²	¹	²
Pied-billed Grebe	M. and S. R.		Common-Rare	
Common Loon	S. R.		Rare	
Black Duck	S. R.		Rare	
Canada Goose	M.			
American Bittern	S. R.		Common	
Green Heron	S. R.		Rare	
Night Heron	M.		Common	
Virginia Rail	S. R.		Rare	
Yellow Rail	S. R.		Rare	
Florida Gallinule	S. R.		Common	
Coot	M.		Rare	
Woodcock	M. and S. R.		Common	
Wilson's Snipe	R. M.		Rare-Common	
Greater Yellowlegs	M.		Rare	
Solitary Sandpiper	M.		Rare	
Bartram's Sandpiper	S. R.		Rare	
Spotted Sandpiper	S. R.		Common	
Kildeer Plover	M.		Rare	
Piping Plover	S. R.		Rare	
Quail	S. R.		Rare	
Ruffed Grouse	R.		Common	
Wild Pigeon	Seen in 1885.			
Mourning Dove	S. R.		Rare	
Marsh Hawk	S. R.		Common	
Sharpshinned Hawk	S. R.		Common	
Cooper's Hawk	S. R.		Common	
Goshawk	M.		Rare	
Red-tailed Hawk	S. R.		Common	
Red-shouldered Hawk	S. R.		Common	
Broad-winged Hawk	M.		Rare	
Bald Eagle	M.		Rare	
Duck Hawk	M. and S. R.		Rare	
Pigeon Hawk	M.		Rare	

Sparrow Hawk	S. R.	Abundant
Fish Hawk	M.	Rare
Barn Owl	Straggler and accidental visitant	Rare
Long-eared Owl	R.	Common
Short-eared Owl	R.	Rare
Barred Owl	R.	Common
Great Gray Owl	W. V.	Rare
Saw-whet Owl	R.	Common
Screech Owl	R.	Common
Great-horned Owl	R.	Common
Snowy Owl	W. V.	Occasional
Yellow-billed Cuckoo	S. R.	Rare
Black-billed Cuckoo	S. R.	Common
Belted Kingfisher	S. R.	Common
Hairy Woodpecker	R.	Common
Downy Woodpecker	R.	Abundant
Arctic Three-toed Woodpecker	W. V. and S. R.	Rare
Striped Three-toed Woodpecker	W. V. and S. R.	Rare-Rare
Yellow-bellied Woodpecker	S. R.	Common
Pileated Woodpecker	R.	Rare
Red-headed Woodpecker	S. R.	Common
Golden-winged Woodpecker	S. R.	Abundant
Whippoorwill	S. R.	Common
Nighthawk	S. R.	Common
Chimney Swift	S. R.	Common
Ruby-throated Hummingbird	S. R.	Common
Great-crested Flycatcher	S. R.	Common
Phoebe	S. R.	Abundant
Olive-sided Flycatcher	S. R.	Rare
Wood Pewee	S. R.	Common
Traill's Flycatcher	S. R.	Locally Abundant
Least Flycatcher	S. R.	Abundant
Prairie Horned Lark	R.	Rare
Blue Jay	R.	Common
Crow	S. R. and R.	Abundant-Rare
Bobolink	S. R.	Common
Cowbird	S. R.	Common
Red-winged Blackbird	S. R.	Common
Meadow Lark	S. R.	Common
Baltimore Oriole	S. R.	Common
Rusty Blackbird	M.	Common
Bronzed Grackle	S. R.	Common
Pine Grosbeak	W. V.	Common
Purple Finch	S. R.	Common
American Crossbill	W. V.	Rare
White-winged Crossbill	W. V.	Rare
Common Redpoll	W. V.	Common
Am. Goldfinch	R.	Common
Pine Siskin	W. V.	Common

Snow Flake	W. V.	Common
Lapland Longspur	W. V.	Rare
Vesper Sparrow	S. R.	Abundant
Savanna Sparrow	S. R.	Common
White-crowned Sparrow	M.	Common
White-throated Sparrow	M. and S. R.	Locally Common
Tree Sparrow	W. V.	Common
Chipping Sparrow	S. R.	Abundant
Slate-colored Junco	M. and S. R.	Common—Locally Common
Song Sparrow	S. R.	Abundant
Lincoln's Sparrow	M.	Rare
Swamp Sparrow	S. R.	Rare
Fox Sparrow	M.	Common
English Sparrow	R.	Too Common
Towhee	S. R.	Common
Rose-breasted Grosbeak	S. R.	Common
Indigo Bunting	S. R.	Common
Scarlet Tanager	S. R.	Common
Purple Martin	S. R.	Not Common
Cliff Swallow	S. R.	Common
Barn Swallow	S. R.	Common
Tree Swallow	S. V.	Rare
Bank Swallow	S. R.	Common
Rough-winged Swallow	S. R.	Rare
Cedar Bird	S. R. and R.	Common—Occasionally
Loggerhead Shrike	S. R.	Common
Northern Shrike	W. V.	Rare
Red-eyed Vireo	S. R.	Abundant
Warbling Vireo	S. R.	Common
Yellow-throated Vireo	S. R.	Common
Blue-headed Vireo	S. R.	Rare
Black and White Warbler	S. R.	Common
Nashville Warbler	S. R.	Common
Tennessee Warbler	S. R.	Rare
Parula Warbler	S. R.	Common
Cape May Warbler	M. and S. R.	Rare
Black-throated Blue Warbler	S. R.	Locally Common
Summer Warbler	S. R.	Abundant
Magnolia Warbler	S. R.	Common
Myrtle Warbler	S. R.	Common
Chestnut-sided Warbler	S. R.	Common
Blackpoll Warbler	S. R.	Common
Bay-breasted Warbler	M.	Rare
Blackburnian Warbler	S. R.	Common
Black-throated Green Warbler	S. R.	Common
Oven Bird	S. R.	Abundant
Water Thrush	S. R.	Rare
Mourning Warbler	S. R.	Common

Maryland Yellow-throat	S.	R.	Abundant
Canadian Warbler	S.	R.	Common
Redstart	S.	R.	Abundant
Catbird	S.	R.	Abundant
Brown Thrasher	S.	R.	Rare
House Wren	S.	R.	Rare
Winter Wren	S.	R.	Common
Brown Creeper	S.	R.	Rare
White-breasted Nuthatch	R.		Common
Red-breasted Nuthatch	R.		Common
Chickadee	R.		Common
Golden-crowned Kinglet	R.		Common
Ruby-crowned Kinglet	M.		Common
Wood Thrush	S.	R.	Common
Wilson's Thrush	S.	R.	Common
Bicknell's Thrush	S.	R.	Rare
Olive-backed Thrush	S.	R.	Locally Common
Hermit Thrush	S.	R.	Common
Robin	S.	R.	Abundant
Bluebird	S.	R.	Abundant

A MIGRATION LIST OF BIRDS FOR BRISTOL AND VICINITY
 Comprehending a Series of Observations During Five Consecutive Years.
 The Figures Represent the Earliest and Latest Date at which the
First Individual of Each Species Named was Seen
 During this Period. By A. C. Dike.

Species	Arrival.
Canada Goose	March 9-15
Woodcock	April 7-11
Spotted Sandpiper	May 4-8
Marsh Hawk	April 7-20
Sharp-shinned Hawk	March 20-29
Cooper's Hawk	April 9-24
Sparrow Hawk	April 7-25
Black-billed Cuckoo	May 10-24
Belted Kingfisher	April 15-25
Yellow-bellied Sapsucker	March 28, April 30
Red-headed Woodpecker	May 11-20
Flicker	April 12-17
Whippoorwill	May 18-25
Nighthawk	May 12-21
Chimney Swift	April 29-May 8
Ruby-throated Hummingbird	May 6-19
Kingbird	May 4-14
Great-crested Flycatcher	May 10-24

Phoebe	April 2-10
Olive-sided Flycatcher	May 14-24
Wood Pewee	May 11-23
Yellow-bellied Flycatcher	May 23-29
Least Flycatcher	April 30-May 7
Horned Lark	April
Bobolink	May 7-18
Cowbird	March 18-28
Red-winged Blackbird	March 25-April 7
Meadow Lark	April 3-7
Baltimore Oriole	May 4-14
Rusty Blackbird	March 10-17
Bronzed Grackle	March 11-29
Purple Finch	March 22-April 2
Vesper Sparrow	April 5-10
Savanna Sparrow	April 9-18
White-throated Sparrow	April 22-30
Chipping Sparrow	April 10-15
Field Sparrow	April 10-18
Slate-colored Junco	Seen March 18, April 25
Song Sparrow	March 12-14
Fox Sparrow	March 20-26
Towhee	May 15-18
Rose-breasted Grosbeak	May 5-11
Indigo Bunting	May 16-20
Scarlet Tanager	May 10-15
Purple Martin	April 16-30
Cliff Swallow	May 2-15
Tree Swallow	April 12-May 4
Bank Swallow	April 30-May 5
Cedar Waxwing	April 10-May 12
Red-eyed Vireo	April 28-May 16
Warbling Vireo	May 2-7
Yellow-throated Vireo	May 10-14
Blue-headed Vireo	April 28-30
Black and White Warbler	April 27-May 5
Nashville Warbler	May 2-10
Parula Warbler	May 4-8
Yellow Warbler	May 1-9
Yellow-rumped Warbler	April 10-20
Magnolia Warbler	May 10-20
Chestnut-sided Warbler	May 4-9
Black-poll Warbler	May 17-22
Blackburnian Warbler	May 5-10
Black-throated Green Warbler	May 3-7
Pine Warbler	April 16-29
Oven Bird	May 5-11
Water Thrush	May 6-11
Maryland Yellow-throat	May 1-12

Wilson's Warbler	May 10-19
Canadian Warbler	May 10-20
American Redstart	May 5-14
American Pipit	May 3-12
Catbird	May 7-12
Brown Thrasher	May 8-14
House Wren	April 29-May 18
Winter Wren	April 15-23
Brown Creeper	During Winter to May 11
Ruby-crowned Kinglet	April 12-27
Wood Thrush	April 12
Wilson's Thrush	May 3-11
Olive-backed Thrush	May 18-23
Hermit Thrush	April 7-17
Robin	March 9-25
Bluebird	March 7-22

RESIDENT SPECIES.

Ruffed Grouse	Hairy Woodpecker
Sharp-shinned Hawk	Downy Woodpecker
Red-tailed Hawk	Pileated Woodpecker
Red-shouldered Hawk	Horned Lark
Duck Hawk	Blue Jay
Long-eared Owl	Crow
Short-eared Owl	Slate-colored Junco
Barred Owl	Am. Goldfinch
Saw Whet Owl	White-breasted Nuthatch
Screech Owl	Red-breasted Nuthatch
Great horned Owl	Chickadee

BIRDS FOUND IN VERMONT.

Holboel's Grebe	Laughing Gull
Horned Grebe	Bonapart's Gull
Piedbilled Grebe	Stormy Petrel
Common Loon	Common Cormorant
Red-throated Diver	American Merganser
Murre	Red-breasted Merganser
Brunnich's Murre	Hooded Merganser
Dovkie	Mallard
Glaucus Gull	Black Duck
American Herring Gull	Gadwall

A Preliminary List of the Birds of Vermont by George H. Perkins,
Ph. D., assisted by Clifton D. Howe, M. S. From the Vermont Agri-
cultural Report, 1901.

Wigeon	Greater Yellowlegs
Baldpate	Yellowlegs
Green-winged Teal	Solitary Sandpiper
Blue-winged Teal	Willet
Shoveller	Bartram's Sandpiper
Pintail	Buff-breasted Sandpiper
Wood Duck	Spotted Sandpiper
Redhead	Black-bellied Plover
Canvasback	American Golden Plover
American Scaup Duck	Killdeer
Lesser Scaup Duck	Little Ring Plover
Goldeneye	Piping Plover
Barrow's Goldeneye	Semi-palmated Plover
Bufflehead	Wilson's Plover
Old Squaw	Turnstone
American Scoter	Quail
Surf Scoter	Canada Grouse
White-winged Scoter	Ruffed Grouse
Ruddy Duck	Wild Pigeon
Masked Duck	Mourning Dove
Lesser Snow Goose	Black Vulture
American White-fronted Goose	Turkey Vulture
Common Wild Goose	Marsh Hawk
Brant	Sharp-shinned Hawk
Whistling Swan	Cooper's Hawk
Wood Ibis	American Goshawk
American Bittern	Red-tailed Hawk
Least Bittern	Red-shouldered Hawk
Great Blue Heron	Swainson's Hawk
Green Heron	Broad-winged Hawk
Night Heron	American Rough-legged Hawk
Whooping Crane	Golden Eagle
Sandhill Crane	Bald Eagle
Clapper Rail	Duck Hawk
Virginian Rail	Pigeon Hawk
Carolina Rail	Sparrow Hawk
Yellow Rail	Fish Hawk
Florida Gallinule	American Barn Owl
Coot	Long-eared Owl
Red Phalarope	Short-eared Owl
American Woodcock	Barred Owl
Wilson's Snipe	Great Gray Owl
Purple Sandpiper	Richardson's Owl
Pectoral Sandpiper	Saw Whet Owl
White-rumped Sandpiper	Screech Owl
Least Sandpiper	Great Horned Owl
Semi-palmated Sandpiper	Snowy Owl
Sanderling	Hawk Owl
Hudsonian Godwit	Yellow-billed Cuckoo

Black-billed Cuckoo	Vesper Sparrow
Kingfisher	Savanna Sparrow
Hairy Woodpecker	Grasshopper Sparrow
Downy Woodpecker	Henslow's Sparrow
Arctic Three-toed Woodpecker	Sharp-tailed Sparrow
Striped Woodpecker	White-crowned Sparrow
Yellow-bellied Woodpecker	Tree Sparrow
Pileated Woodpecker	Chipping Sparrow
Red-headed Woodpecker	Field Sparrow
Yellow Hammer	Junco
Whippoorwill	Song Sparrow
Night Hawk	Lincoln's Sparrow
Chimney Swift	Swamp Sparrow
Ruby-throated Hummingbird	Fox Sparrow
Kingbird	English Sparrow
Great-crested Flycatcher	Chewink
Phoebe	Cardinal
Olive-sided Flycatcher	Rose-breasted Grosbeak
Wood Pewee	Blue Grosbeak
Yellow-bellied Flycatcher	Indigo Bunting
Acadian Flycatcher	Scarlet Tanager
Trail's Flycatcher	Summer Tanager
Least Flycatcher	Purple Martin
Horned Lark	Cliff Swallow
Prairie Horned Lark	Barn Swallow
Blue Jay	Tree Swallow
Canada Jay	Bank Swallow
American Raven	Roughwinged Swallow
Common Crow	Waxwing
Fish Crow	Bohemian Waxwing
Bobolink	Northern Shrike
Cowbird	Loggerhead Shrike
Red-winged Blackbird	White-rumped Shrike
Meadow Lark	Red-eyed Vireo
Orchard Oriole	Philadelphia Vireo
Baltimore Oriole	Warbling Vireo
Rusty Blackbird	Yellow-throated Vireo
Purple Grackle	Blue-headed Vireo
Bronze Grackle	White-eyed Vireo
Pine Grosbeak	Black and White Warbler
Purple Finch	Prothonotary Warbler
American Crossbill	Worm-eating Warbler
White-winged Crossbill	Blue-winged Warbler
Redpoll	Golden-winged Warbler
Hoary Redpoll	Nashville Warbler
Goldfinch	Tennessee Warbler
Pine Siskin	Parula Warbler
Snowflake	Cape May Warbler
Lapland Longspur	Black-throated Blue Warbler

Summer Warbler	Mockingbird
Myrtle Warbler	Catbird
Magnolia Warbler	Thrasher
Chestnut-sided Warbler	Carolina Wren
Bay-breasted Warbler	House Wren
Blackpoll Warbler	Winter Wren
Blackburnian Warbler	Long-billed Marsh Wren
Black-throated Green Warbler	Brown Creeper
Pine Warbler	White-breasted Nuthatch
Palm Warbler	Red-breasted Nuthatch
Yellow Palm Warbler	Tufted Titmouse
Oven Bird	Chickadee
Water Thrush	Golden-crowned Kinglet
Connecticut Warbler	Ruby-crowned Kinglet
Mourning Warbler	Wood Thrush
Maryland Yellowthroat	Wilson's Thrush
Yellow-breasted Chat	Graycheeked Thrush
Hooded Warbler	Bicknell's Thrush
Wilson's Warbler	Olive-backed Thrush
Canadian Warbler	Hermit Thrush
Red Start	Robin
American Pipit	Bluebird

INFORMATION BUREAU.

Upon request, the following persons will give information to teachers and pupils in regard to the birds of their localities:

Mr. A. C. Dike, Bristol.

Dr. L. H. Ross, Bennington.

Prof. J. W. Votey, Burlington.

Prof. G. H. Perkins, Burlington.

Miss Delia I. Griffin, Fairbanks Museum, St. Johnsbury.

Miss Isabel M. Paddock, St. Johnsbury.

Rev. S. P. Brownell, West Barnet.

Mr. W. E. Balch, Lunenburg.

Mr. G. E. Edson, St. Albans.

Mrs. Fannie A. Stevens, South Hero.

Mrs. H. E. Straw, Stowe.

Mrs. H. A. Noyes, Hyde Park.

Mr. R. G. Brock, Wells River.

Rev. W. C. Prentiss, Newbury.

Mr. G. H. Ross, Rutland.

Mr. Wyatt A. Kent, Proctor.
Rev. D. D. Chapin, Brandon.
Mrs. E. B. Davenport, Brattleboro.
Mr. C. H. Evans, Townshend.
Mrs. J. L. Alger, Saxton's River.
Mr. W. W. Brown, Springfield.
Miss Alice Eaton, Woodstock.
Mr. A. J. Eaton, South Royalton.

THE AUDUBON SOCIETY OF VERMONT.

OFFICERS:

President, Carlton D. Howe, Essex Junction.
Secretary, Mrs. Elizabeth B. Davenport, Brattleboro.
Treasurer, Miss Kate Selleck, Brattleboro.

The objects of the Audubon Society are to promote educational work in the interest of our native birds through the public schools, popular lectures, field excursions, and circulation of literature; to discourage the wearing of feathers, except those of game birds, the plumes of the ostrich, and domestic fowls; to encourage the planting of trees and shrubs in our towns and villages with special view to the preference of the birds; to discourage the destruction of our native birds and their eggs; to extend the observance of Arbor Day and Bird Day in the schools of Vermont, and to encourage the study of natural history.

THE VERMONT BIRD CLUB.

OFFICERS:

Pres., Prof. G. H. Perkins, Burlington.
Sec. and Treas., Mr. G. H. Ross, Rutland.

The objects of this club are: to collect and preserve information concerning the birds found in the state; to create and encourage an interest in birds; to promote scientific investigation and to secure protection for all beneficial species.

Persons interested in the study and protection of birds are cordially invited to identify themselves with one or both of these organizations. Further information will be given gladly by the officers of these societies.

LIST OF BIRD PUBLICATIONS.

Below are a few of the many good bird books which will be found helpful to teachers and pupils:

CHAPMAN'S

Handbook of Birds of Eastern North America.....	\$3.00
Bird Studies with a Camera	1.75
Bird Life	1.75

Published by D. Appleton & Co., New York.

WILLCOX'S

Common Land Birds of New England.....	.65
Lee & Shephard, Boston.	

DUGMORE'S

Bird Homes	2.00
Doubleday, Page & Co., New York.	

BLANCHAN'S

Bird Neighbors	2.00
Doubleday, Page & Co., New York.	

WRIGHT'S

Citizen Bird	1.50
Birdcraft	2.50
Macmillan Company, New York.	

MERRIAM'S

Birds of Village and Field	2.00
Birds Through an Opera Glass75

BABCOCK'S

Bird Day, How to Prepare for it.....	.50
Silver, Burdett & Co., Boston.	

WEED & DEARBORN'S

Birds in their Relation to Man.....	2.50
J. B. Lippincott Co., Philadelphia.	

MILLER'S

First Book of Birds	1.00
Second Book of Birds	1.00
Birds Ways	1.25
In Nesting Time	1.25

Little Brothers of the Air	1.25
Upon the Tree Tops	1.25
Houghton, Mifflin & Co., New York.	
STICKNEY & HOFFMAN'S	
Bird World75
Ginn & Co., Boston.	
LANGE'S	
Hand Book of Nature Study and How to Protect and Attract	
Native Birds	1.00
Macmillan Company, New York.	
BURROUGH'S	
Signs and Seasons	1.25
Wake Robin	1.25
Fresh Fields	1.25
Pepacton	1.25
Houghton, Mifflin & Co., New York.	
TORREY'S	
Birds in the Bush	1.25
A Rambler's Lease	1.25
The Foot-Path Way	1.25
Houghton, Mifflin & Co., New York.	
PARKHURST'S	
How to Name the Birds	1.00
Charles Scribner's Sons, New York.	
ROBINSON'S	
In New England Fields and Woods.....	1.25
Houghton, Mifflin & Co., New York.	
Teachers may profitably use Bird and Nature Pictures, in natural colors. A. W. Mumford, 378 Wabash Ave., Chicago. The Perry Picture Company, Malden, Mass., 2 cents. The Audubon Bird Charts, in colors, The Prang Educational Company, Boston.	
The United States Department of Agriculture publishes interesting and instructive pamphlets containing results of the investigations of the food habits of different birds. Most of these are distributed free. Two pamphlets entitled, Hawks and Owls from the Standpoint of the Farmer,	

and Audubon Societies in Relation to the Farmer, are especially recommended.

The Educational Leaflets, published by the National Committee of the Audubon Societies, contain illustrations, descriptions and discussions of the economic value of birds. These may be obtained, at a small cost, from Mr. Wm. Dutcher, 525 Manhattan Ave., New York City.

BIRD MAGAZINES—The *Auk*, official organ of the American Ornithologists' Union. Published quarterly. Price \$3.00 per year. 30 Boylston St., Cambridge, Mass.

Bird Lore—Official organ of the Audubon Societies. Bi-monthly. Price \$1.00 per year. Macmillan Company, Harrisburg, Pa.

American Bird Magazine—Monthly. Price \$1.00 per year. 75 Thomas St., Worcester, Mass.

CIRCULARS OF THIS SERIES ALREADY ISSUED.

I.	Nature Study, with supplement, School Homes	16 pages, postage 1c
II.	Trees of Vermont	56 pages, postage 2c
III.	School Sanitation	24 pages, postage 1c
IV.	The Study of Trees.....	8 pages, postage 1c
V.	The Study of Birds	24 pages, postage 1c
VI.	Vermont Grasses and Clovers.....	48 pages, postage 2c
VII.	Making All Things New (An Address)....	14 pages, postage 1c
VIII.	Arbor Day	40 pages, postage 2c
IX.	High School Education in Vermont.....	24 pages, postage 1c
X.	Outline Course in Nature Study.....	52 pages, postage 2c
XI.	Vermont School Statistics.....	8 pages, postage 1c
XII.	Examination and Certification of Teachers.	48 pages, postage 2c
XIII.	School Gardens	32 pages, postage 2c
XIV.	Educational Progress in Vermont (An Address)	16 pages, postage 1c
XV.	Good Citizenship	12 pages, postage 1c
XVI.	School Laws (Acts of 1904).....	24 pages, postage 1c
XVII.	Supplement to No. XII	8 pages, postage 1c
XVIII.	Fifty Common Birds of Vermont.....	92 pages, postage 4c

Gaylord Bros.
Makers
Syracuse, N. Y.
PAT JAN. 21, 1908

